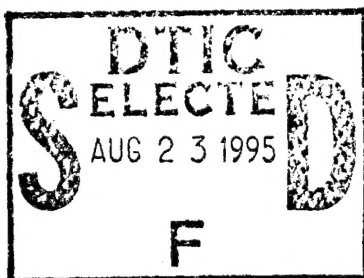


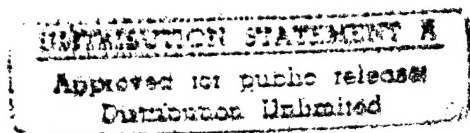
**The Laws of Armed Conflict and Environmental Protection: Striking A Balance**

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## CONTENTS

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### **The Laws of Armed Conflict and Environmental Protection: Striking A Balance**

#### **Part I: Introduction**

- |   |   |
|---|---|
| 1. International Law and Wartime Environmental Protection | 1 |
| 2. Objectives and Conclusion                              | 3 |

#### **Part II: Defining the Problem**

- |  |   |
|--|---|
| 1. Values: Regulating Armed Conflict Environmental Impacts | 4 |
| 2. Legal Approaches to Wartime Environmental Protection    | 6 |

#### **Part III: Law of Armed Conflict: Customary and Conventional Law**

- |                                     |    |
|-------------------------------------|----|
| 1. Customary Law                    | 7  |
| A. General Principles               | 7  |
| B. Applicability to the Environment | 9  |
| 2. Conventional Law                 | 12 |
| A. Overview                         | 12 |
| B. Modern Developments              | 13 |
| C. Applicability to the Environment | 31 |

#### **PART IV: Environmental Law Norms**

- |   |    |
|---|----|
| 1. Overview                             | 32 |
| 2. Stockholm Declaration: Principle 21  | 33 |
| 3. Emerging Norms                       | 37 |
| 4. Cultural Norms and Environmental Law | 38 |

#### **Part V: Conclusion**

- |   |    |
|---|----|
| 1. Law of Armed Conflict and Environmental Protection:<br>The Present Balance | 39 |
| 2. Future Prospects for The Law of Environmental Protection in War            | 43 |

- |                 |           |
|-----------------|-----------|
| <b>Endnotes</b> | <b>48</b> |
|-----------------|-----------|

# The Laws of Armed Conflict and Environmental Protection: Striking A Balance

## **I. Introduction**

### **1. International Law and Wartime Environmental Protection**

The post-Cold War era presents many challenges for the development of public international law. States, which are its predominant subjects and are a major force for its future development, will, as in the past, look to the "law of nations" to accommodate conflicting interests within a legal framework which historically reflects states' vital interests. Conflicts of interests, the extreme manifestations of which result in armed conflicts, undoubtedly will continue to color the relationship between states. Thus, international law is a fundamental institution which provides a fluid structure for the myriad inter-state relations. One of its essential attributes is a dynamic process of norm-building based on shared values and accommodation of countervailing values. This process may be observed in two vitally important branches of international law:<sup>1</sup> the laws of armed conflict<sup>2</sup> and environmental law.

In the last several decades, increasing awareness of and knowledge about the "natural environment" has heighten international concern for "environmental protection".<sup>3</sup> Environmental law as a distinct branch of international law is still relatively undeveloped and norms are evolving as states gain new knowledge of the environment. The emerging environmental norms may be reflective of existing cultural norms, or as suggested by Professor Stone, may influence the development of positive cultural norms towards the environment.<sup>4</sup> In any event, the growing pains of this branch of international law may highlight some of the most consequential value accommodations that may impact the future of human beings on this planet.

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As Gundling notes, environmental protection may be one of the most difficult areas for law because it necessarily involves value judgments.<sup>5</sup> Among states these value judgments are magnified due to the complexity of the environment and the wide-range of human activities which present known and uncertain risks to the environment, both within and beyond national jurisdiction. While states have generally agreed on generic obligations, in the context of armed conflict the status of norms relating to environmental protection, and how to implement norms upon which there is consensus, is one of the developmental challenges of international law.

In contrast, the laws of armed conflict trace their lineage to antiquity and there is wide consensus as to their content, though not surprisingly disagreements as to their application in specific cases. Its historical development is documented extensively and is beyond the scope of this paper.<sup>6</sup> However, for our purposes the traditional international law distinction between the *jus ad bello* and *jus in bello* requires mention. In short, the former refers to the law establishing the legal basis to resort to force, and the latter to the legal rules which establish the parameters for belligerents' means and methods for the conduct of armed hostilities.<sup>7</sup>

The contemporary *jus ad bello* is enshrined in the United Nations Charter. Specifically, the Charter makes resort to the use of force illegal by its mandate that member states "shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations."<sup>8</sup> However, while the United Nations Charter is generally viewed as the centerpiece of the international legal framework, elaborating the modern *jus ad bello*, reaffirming the fundamental international law principle of sovereign equality of States and establishing alternative mechanisms to the use of force,<sup>9</sup> it has failed to avert the outbreak of armed conflicts between states.<sup>10</sup> Consequently, the progressive development of the *jus in bello* as a means to regulate the



potential catastrophic consequences of modern warfare, particularly on the environment, is as mentioned above, an important challenge to the future development of international law.

The historical development of the *jus in bello* reflects a progressive evolution in response to socio-political conditions. It is essentially the product of shared cultural values and reflects essential state interests.<sup>11</sup> Traditionally, this branch of the law of armed conflict has been primarily concerned with promoting humanitarian considerations during war. However, as will be discussed herein, the laws of war also encompass obligations for belligerents to consider the environmental impacts of wartime activities, and are evolving to reflect with greater explicitness contemporary environmental values emerging from the international law-making process.

## **2. Objectives and Conclusion**

In this paper we shall consider the existing normative framework of the law of armed conflict, the *jus in bello*, as it relates to protection of the environment. We will review customary law of armed conflict and highlight major conventional developments to assess the necessity and feasibility for reform in light of the trend in international environmental law to impose explicit environmental protection obligations on states. The Persian Gulf War of 1991, illustrates the issues presented and the conflicting values inherent in these two branches of international law. The post-war debate raised the questions whether the "environment" is adequately protected by existing law from the environmentally destructive potential of modern warfare, or is new conventional law on wartime environmental protection needed.<sup>12</sup> Serious consideration of these questions brings the international law-making process to a crossroads as it attempts to accommodate evolving environmental law norms, such as a yet to be defined "right of the environment", with countervailing values encompassed in the laws of armed conflict, which emphasize military necessity despite detriment to the environment.

Our study of the existing law of armed conflict framework, when considered as one element of the modern international legal regime embodied by the United Nations Charter, reveals a flexible legal regime which has incorporated emerging norms, including environmental law norms, reflective of authoritative decisions. As suggested by McDougal, authoritative norms are predicated on the existence of conducive socio-political conditions.<sup>13</sup> In view of the central role of sovereign states in the international polity and their parochial concerns for "national security", which is reflected in part in the long-standing balance of state interests embodied in the existing law of armed conflict, it appears states are not yet willing to accept rigid conventional norms, or if accepted that they will be adhered to, limiting the use of force solely to protect the "environment." Our analysis of the development of the law of war demonstrates that its normative structure has the necessary breadth to accommodate changing attitudes favoring greater environmental protection as they mature into authoritative norms. Thus, we conclude that of the available options, the present legal framework offers the best approach for the development of *jus in bello* "environmentally friendly" norms. Additionally, essential to this endeavor is the necessity to strengthen the modern institutional structure of international law. The international community needs to address the issue of compliance with international law, by developing and strengthening the existing institutions, including the available enforcement mechanisms, of the international "legal system".

## **II. Defining the Problem**

### **1. Values: Regulating Armed Conflict Environmental Impacts**

It is axiomatic that warfare is an inherently destructive activity and damage to the environment, intentionally inflicted or collaterally caused, is one of its constant consequences.<sup>14</sup> The historical record, however, reflects that states are "motivated by humanitarian, religious and - above all - practical considerations," to attempt to regulate

armed conflict activities in order to advance mutual values.<sup>15</sup> Thus, common values transcend cultural and political boundaries and are conducive to the emergence of international legal norms aimed at limiting the kind and degree of damage during armed conflicts. In essence, international cultural norms relating to constraints on warfare damage evolved as war became a more devastating enterprise and these in time developed into usage and customs embodied in the law of nations. Commencing in the latter half of the nineteenth century, international law underwent unprecedented institutional development as states began to codify and extend customary law in conventions to address specific issues in the conduct of warfare.<sup>16</sup>

The early customary norms of the laws of war were primarily concerned with protection of the "anthropogenic environment" and people not directly involved in the conflict. Thus, this branch of the laws of war is commonly referred to as "humanitarian law."<sup>17</sup> However, as discussed below, the principles of customary law, which are the framework for the lawful conduct of armed hostilities vis-a-vis belligerents, also encompass duties to minimize damage to the environment in connection with, and independent of, the traditional protection conferred on non-belligerents. Moreover, since modern conventions have codified customary law, they impose the same obligations relative to the environment. Further, conventional developments in recent decades have included explicit environmental protection provisions. These provisions are reflective of a general trend in international law to protect the environment and manifest the evolutionary assimilation of evolving norms, in this case environmental norms, into the *jus in bello*.<sup>18</sup> However, the conventions have been criticized as inadequate because the threshold of damage to trigger their application is considered unreasonably high. Additionally, conventional norms generally echo traditional law of war doctrines and seemingly protect the environment as a means of protecting human beings and property.<sup>19</sup> Overall, law of war conventions do not conform with so-called "third stage" international environmental

law "instruments" which reflect a developmental trend "toward acknowledging nature's rights in a biocentric perspective."<sup>20</sup>

## **2. Legal Approaches to Wartime Environmental Protection**

The experience of the Persian Gulf War of 1991 highlights the fundamental problem of conflicting values underlying the future development of the two branches of international law under discussion. The post-war debate manifested the divergent approaches to the legal status of the environment and the manner of its protection during armed conflict. On the one hand, the widespread outrage over Iraq's callous and seemingly unnecessary "environmental tactics" may be viewed as an expression of an emerging, or perhaps existing, "biocentric perspective" in international environmental law.<sup>21</sup> This approach suggests reforming the laws of war to impose explicit constraints on belligerents for nature's sake, independent of human interests, to proscribe environmental damage such as occurred in the Gulf War. On the other hand, it is also tenable that under existing law of armed conflict norms, Iraq's environmental tactics may likewise be condemned as unjustified and unlawful. To consider these approaches to wartime environmental protection and gain insight into the need and feasibility for normative reforms in the laws of armed conflict, we next survey the content of the existing normative framework relative to protection of the environment. We first discuss the customary law of armed conflict, survey and consider pertinent conventional developments, and finally turn to consideration of the status of environmental law norms and their applicability in the context of armed conflict.

### **III. Law of Armed Conflict: Customary and Conventional Norms**

Section one discusses customary law of war and its applicability to environmental protection. Section two surveys conventional developments and reviews provisions pertinent to environmental protection.

## 1. Customary Law

### A. General Principles

As stated above, the customary laws of war establish the normative framework for the lawful use of force vis-a-vis belligerents, and also establish duties towards the civilian population and objects, (e.g. non-belligerents and the human environment), as well as the environment of neutral states.<sup>22</sup> The four generally recognized customary law principles also establish the foundation for the conventional norms discussed below and provide the elemental basis for protection of the environment during armed conflict.<sup>23</sup> Professor Falk formulates the principles as follows, noting their "great importance in construing the contours of existing international law" as it pertains specifically to warfare environmental damage.<sup>24</sup>

- a) *Principles of Discrimination.* To be lawful, weapons and tactics must clearly discriminate between military and non-military targets, and be confined in their application to military targets. Indiscriminate warfare is illegal *per se*, although indirect damage to civilians and civilian targets is not necessarily illegal.
- b) *Principle of Proportionality.* To be lawful, weapons and tactics must be proportional to their military objective. Disproportionate weaponry and tactics are excessive, and as such, illegal.
- c) *Principles of Necessity.* To be lawful, weapons and tactics involving the use of force must be reasonably necessary to the attainment of their military objective. No superfluous or excessive application of force is lawful, *even if the damage done is confined to the environment*, thereby sparing people and property. (emphasis added).
- d) *Principles of Humanity.* To be lawful, no weapon or tactic can be validly employed if it causes unnecessary suffering to its victims, whether this is by way of prolonged or painful death or is in a form calculated to cause severe fright or terror. Accordingly, weapons and tactics that spread poison or disease or do genetic damage are generally illegal *per se*, as they inflict unacceptable forms of pain, damage, death and fear; *all forms of ecological disruption would appear to fall within the sway of this overall prohibition.*<sup>25</sup> (emphasis added)

The essence of these principles is captured by the overriding fundamental customary law principle, also explicitly incorporated in modern conventions, which provides that "the right of belligerents to adopt means of injuring the enemy is not unlimited."<sup>26</sup> These principles are intertwined and within the stricture of the latter "principle of limitation", their application during armed conflict involves essentially a balancing process.<sup>27</sup> Their amorphous structure obviously calls for subjective application within the context of the military situation presented. Hence, not surprisingly there are often questions after most wars about violations of the law. This indefinite characteristic is one ground for arguments that customary law is inadequate to protect the environment. However, generality and ambivalence is generic to the international legal framework, customary as well as conventional, and these norms by definition are widely accepted, they are just on occasion bent at the convenience of belligerents. The post-Gulf War debate provided the most recent forum for questioning the propriety of tactics within the framework of these principles.<sup>28</sup> Theoretically, to reach a tactical judgment which conforms with the dictates of customary law principles of humanity and discrimination, the principle of military necessity is critical as "the limiting factor on a belligerent state's ability to choose the means and methods by which to harm its opponents....(and is) the measure of whether a military action may be sanctioned as an unacceptable (disproportionate) act of war." <sup>29</sup>

Undoubtedly, defining "military necessity" presents practical conceptual problems leading to diverse opinions about "dubious" military targeting which adversely impacts the environment. However, ambiguity and definitional problems are not unique to the laws of war.<sup>30</sup> Hence, we must accept the general nature of customary law, particularly the concept of "necessity", as an "unavoidable requisite"<sup>31</sup> of the dynamic process which states have, by authoritative decisions,<sup>32</sup> structured to address the myriad exigencies of warfare. States have generally continued this amorphous customary law approach in modern law of war conventions. As our classmate insightfully observed: "Vagueness in

language is an established rule of draftsmanship in the international arena."<sup>33</sup> Hence, we may deduce that states explicitly reject relinquishing broad discretion to apply proportional force as deemed militarily necessary under the circumstances to subdue the enemy. The balance of interests embodied in the customary law principles, which by definition is the product of state consent and practice, is, as we shall see below, generally reflected in the conventional law which pertains to environmental protection.<sup>34</sup>

### *B. Applicability to the Environment*

As highlighted by Professor Falk's formulation and the foregoing discussion, the principles of customary law have "direct relevance for the protection of the environment", and if observed in good faith provide far-reaching safeguards for the environment during armed conflict.<sup>35</sup> Also, as one commentator reasonably suggests, the limitation principle alone acts as a constraint on belligerent's environmental damage.<sup>36</sup> Inasmuch as belligerents do not have an unlimited right to inflict injury, it logically follows that not all environmentally destructive acts of war are lawful. To inflict environmental damage in disregard of reasonably foreseeable consequences unrelated or disproportionate to the military objective, would clearly violate this primary rule of the laws of armed conflict.<sup>37</sup> Professor Falk, who is skeptical of the extent to which customary law really protects the environment, nonetheless concedes the importance of customary norms as possibly providing "the only genuine basis for claiming violations of international law in relation to the sort of belligerent practices associated with recent war ...." <sup>38</sup> His views are premised on the shortcomings of current conventional law which he perceives is "confined to the outer margins" and does not address in comprehensive fashion the myriad environmental concerns arising from modern warfare. <sup>39</sup>

Hence, unquestionably existing customary law of war provides a substantive normative basis for protection of the environment from unnecessary damage, whether viewed from



an anthropocentric or biocentric perspective. In brief, under customary law, belligerents may rightfully use proportional force required by the exigencies of legitimate military necessity to achieve lawful objectives, (e.g. that which is reasonably connected with defeat of the enemy), and are duty bound to avoid inflicting unnecessary suffering and excessive damage.<sup>40</sup> Thus, indiscriminate damage to the environment, either intentional or collaterally caused, is prohibited since it violates the principle of limitation and inflicts "suffering", on the environment, as well as the human population which depends on the environment for subsistence.<sup>41</sup> In this respect, one commentator has suggested that the prohibition against wanton destruction of the environment "is peremptory, as *jus cogens*."<sup>42</sup>

Moreover, the indispensable role of customary law norms as a significant source of legal constraints in wartime was explicitly recognized by the international community in its earliest efforts at codification of the laws of war. The preamble to the 1907 Hague Convention IV Respecting the Laws and Customs of War on Land, which improvised with slight revision the 1899 Hague Convention II, declared:<sup>43</sup>

According to the views of the High Contracting Parties, these provisions, the wording of which has been inspired by the desire to *diminish the evils of war as far as military necessities permit*, are intended to serve as a general rule of conduct for the belligerents in their mutual relations and in their relations with the inhabitants.

It has not, however, been found possible at present to concert Regulations covering all the circumstances which arise in practice.

On the other hand, the High Contracting Parties clearly do not intend that unforeseen cases should, in the absence of written undertaking, be left to the arbitrary judgment of military Commanders.

*Until a more complete code of the laws of war has been issued, the High Contracting Parties deem it expedient to declare that, in cases not included in the Regulations adopted by them, the inhabitants and the belligerents remain under the protection and the rule of the principles of the law of nations, as they result from the usages established among civilized peoples, from the laws of humanity, and the dictates of the public conscience.*<sup>44</sup> (emphasis added)



The above final clause, the so-called Martens Clause, since restated in analogous fashion in major law of war conventions, acknowledges the important gap-filling function of customary law absent a specific provision or treaty obligations.<sup>45</sup> In regard to protection of the environment during armed conflict the clause is potentially very significant as there is no comprehensive treaty on this subject. Thus, it has been posited that "(t)he customary law of war, in reflecting the modern increase in concern for the environment as one of the dictates of public conscience in the sense understood in the Clause, now includes a requirement to avoid unjustified damaged to the environment." <sup>46</sup> In our survey of environmental law norms, we will consider the extent to which relevant norms are reflective of authoritative decisions,<sup>47</sup> and underscored by developing attitudes in public opinion relative to protection of the environment during armed conflict. <sup>48</sup>

At this juncture, it suffices to note that international environmental law has mostly developed in the context of peacetime relations of states. Consequently, the nature and scope of binding obligations on belligerents under contemporary environmental norms is not yet settled.<sup>49</sup> On the one hand, we can generally state that emerging environmental norms do not appear to have attained the status of customary norms applicable in war, which apparently is requisite for invocation of a Martens Clause rationale. On the other hand, there may be widespread recognition of some peacetime principles relative to environmental protection, and corresponding obligations of states thereunder, to support their invocation as binding customary norms applicable in wartime. One of the difficulties encountered in assessing the wartime status of environmental norms is that they are found in a plethora of instruments, and even those which are of binding character do not provide for the contingencies of war<sup>50</sup>. However, and most significantly, some environmental norms are reinforced by growing state practice, impelled in part by evolving concepts of international state responsibility and progressive public consciousness toward the environment generally. Increasingly, environmental law instruments have recognize the

environment's intrinsic value and entail obligations for states to protection and conservation diverse elements of the environment.<sup>51</sup> Hence, commentators have extrapolated from these developments that the current trend in international law is to recognize "nature's rights", the legal rights of the environment *per se*,<sup>52</sup> with the implication that the customary laws of war, by virtue of the Martens Clause, should also conform to this trend.

## 2. Conventional Law

### A. Overview

Law of war conventions supplement as well as codified customary law principles. Hence, in a general sense, convention law provides for protection of the environment independent of and in conjunction with the promotion of humanitarian values. In recent decades, explicit environmental protection obligations have been included in conventional provisions, a development seemingly in accord with "a change of the predominant paradigm in international environmental law" recognizing "nature's rights".<sup>53</sup> Conventional law of war, however, has not gone as far as "third stage" contemporary environmental law instruments. Thus, the "biocentric" approach has not yet been recognized by states in the context of armed conflict.<sup>54</sup> Inasmuch as contemporary conventional law of war reflects explicit accommodations of emerging values in favor of environmental protection, it does not disturb the balance of values reflective of states' policy strategies not to forgo the prerogatives implicit in customary law principles.<sup>55</sup>

Nonetheless, the significant development to be gleaned from these relatively limited conventional norms in favor of the environment, is the adaptability of the existing normative framework to emerging authoritative norms. As technological and scientific developments in warfare and in the environmental field influence social conceptions of what is militarily necessary and environmentally acceptable, the existing broadly framed conventional, as well as customary, prescriptions are over time construed or reformed in

the light of "new thinking."<sup>56</sup> In this respect, the laws of war are obviously like other rules of international law, a system of laws which is far from static. The content of the legal norms derives from a dynamic socio-political process and are defined by the "recognized social forces of the time, to ensure that the purposive and instrumental use of force...achieves its ultimate political objective in a controlled manner."<sup>57</sup> Professor Falk summarized the historical milieu leading to the explicit infusion of environmental values into the law of war as follows:

The evolution of the law of war proceeded against a background of virtual environmental unconsciousness until some awareness was generated by critics of belligerent practices harmful to the environment during the latter stages of the Vietnam War. In earlier wars, there were sporadic expressions of concern, and even legal condemnations, associated with punitive tactics toward a civilian population, such as the burning of croplands and forests and the poisoning of wells..... Yet, until the early 1970's, when a broader environmental concern took hold of the political imagination, no focused attention was directed toward protecting the environment from the ravages of war....Beginning in 1972, normative attention began to be directed toward environmental protection as a distinct public concern.<sup>58</sup>

#### B. *Modern Developments*

The formative era of modern conventional *jus in bello* dates from the mid-nineteenth century. This was a unique period of development for the international legal system generally as positivism took hold as the "dominant juristic theory", within the political system of nation-states who solidified the concept of their "sovereign rights" as the cornerstone of the modern state system.<sup>59</sup> States increasing power to organize mass armies and the transformation in means of destroying the enemy resulting from advanced technological developments in military science, were paramount factors in the dramatic changes in the nature of warfare. These developments in the wartime relations of states contributed to social imperatives and political incentives for watershed conventions which had a "major formative influence on the structure of the modern *jus in bello*."<sup>60</sup>

Hence, the conventional developments culminating with the 1907 Hague Convention IV,<sup>61</sup> were landmark developments in international law, as states engaged in the codification of prevailing customary law, and progressively developed the *jus in bello* to secure mutual values affected by the changing character of warfare. In perhaps unprecedented fashion, states endeavored to "humanize" war by explicitly prohibiting specific weapons and by proscribing belligerent conduct during armed conflict.<sup>62</sup> Moreover, as noted by Professor Falk, in recent decades states in consonance with prevailing social-political attitudes and economic needs, have also begun to instill environmental conscientiousness into the laws of war.

As mentioned above, since the mid-nineteenth century, warfare has become increasingly complex and decentralized, as the ability to define the battlefield is essentially and increasingly coextensive with the technological and military capabilities of the belligerents. This was most strikingly illustrated in the Gulf War by Coalition attacks on Iraqi targets, some of which were carried out by cruise missiles launched hundreds of kilometers from the target by warships on the high seas; and, by Iraqi engagements into neutral territory with the infamous "Scud" attacks on Israel in an effort to broaden the hostilities. Accordingly, conventions have been tailored to respond to the complexities of warfare, and may be generally categorized by the status of the geographic zone in which hostilities take place, or by specific subject-matter relating to the means and methods of hostilities. Thus, to assess the legal ramifications of the environmental damage in question, it is necessary to determine the status of the battle zone in which the belligerent is operating (e.g. its own land or seas, enemy or occupied land or seas, neutral land or seas, or the high seas).<sup>63</sup>

Furthermore, as noted by Professor Falk, until recently there was no explicit recognition of environmental interests in conventional law. But the interpretative process by which the laws of war accommodate evolving norms is most evidently at work within

the authoritative decision-making process.<sup>64</sup> In other words, conventional provisions which do not explicitly address environmental damage are construed and applied under the shining light of contemporary socio-political perspectives as relevant to protection of the environment. These interpretations of non-environmental specific conventional provisions are engendered in part by prevailing concerns for the environment *per se*, but by enlarge sustained as normative in nature, and accepted by states, because the constraints in favor of the environment are intricately linked with protection of human interests and the human environment, the traditional subjects of humanitarian law. Another significant factor in the acceptance of these progressive interpretation is that they continue to recognize the primacy of state's wartime interests by allowing for the imperatives of military necessity as codified in the pertinent conventions. This hypothesis is supported by the explicit conventional provisions protecting the environment, which with some exceptions, continue to subordinate environmental values to the "necessities of war". Hence, with long-standing customary norms as its bedrock, and the maturity thus far achieved during over one century of conventional development, the existing "law of armed conflict contributes to the protection of the human environment, both directly and indirectly." <sup>65</sup> We now consider the extent of that contribution by tracing the landmark developments in conventional law, focusing on the content of provisions relevant to environmental protection during land-based armed conflict .<sup>66</sup>

## 1. The Hague Tradition

### a. St. Petersburg Declaration<sup>67</sup>

The St. Petersburg Declaration of 1868 is a significant landmark in the evolution of the modern laws of war. Among the first multilateral accords on the limitation of specific weapons, its contemporary relevance with regard to environmental protection during war lies in its affirmation of fundamental principles.<sup>68</sup> The Declaration affirmed the core

principles of customary law with "those attendant spirits of qualification and adaptation which are part and parcel of the law of war's mixed history" as follows:<sup>69</sup>

...(H)aving by common agreement fixed the technical limits at which the necessities of war should yield to the requirements of humanity, the Under-signed are authorized by the order of their Governments to declare as follows:

Considering that the progress of civilization should have the effect of alleviating as much as possible the calamities of war;

That the only legitimate object which States should endeavor to accomplish during war is to weaken the military forces of the enemy;

That for this purpose it is sufficient to disable the greatest possible number of men;

That this object would be exceeded by the employment of arms which uselessly aggravate the suffering of disabled men, or render their death inevitable;

That the employment of such arms would, therefore, be contrary to the laws of humanity;

....  
The Contracting or Acceding Parties reserve to themselves to come hereafter to an understanding whenever a precise proposition shall be drawn up in view of future improvements which science may effect in the armament of troops, in order to maintain the principles which they have established, and to conciliate the necessities of war with the laws of humanity.<sup>70</sup>

....  
The Parties rejection of arms which inflict unnecessary suffering and which do not promote "the only legitimate object" of "war among themselves", provides implicit protection to the environment "to the extent that elements or regions of the natural environment are not legitimate military targets".<sup>71</sup> The Declaration, which is still in force, and binding on non-parties to the extent it reflects customary law, was extremely influential in foreshadowing weapons limitation agreements and cleared the common ground for subsequent "Hague law" developments.<sup>72</sup>

#### b. Hague Conventions<sup>73</sup>

The Hague Conventions and Annexed Regulations are a tribute to the possibilities of inter-state cooperation to regulate warfare activities. Therein states achieved

unprecedented milestones in the progressive development of international law generally and the *jus in bello* specifically. Such a "precocious codification of the laws of war" was a novel undertaking in international law, not to be replicated until decades later with regards to other specialized subjects of law.<sup>74</sup> The Regulations annexed to Hague Convention IV, consisting of fifty-six articles, improvised and extended the patrimonial principles implicitly embodied in the St. Petersburg Declaration to the field of warfare on land. The Regulations are binding as customary law, thus its proscriptions are binding on non-parties, such as Iraq, and also upon states that denounce the treaty obligations contained therein.<sup>75</sup>

Although the Regulations were the product of an era characterized by "virtual environmental unconsciousness",<sup>76</sup> they reveal "trends in the expectations of the global community regarding destruction in general",<sup>77</sup> expectations which were too often dashed and thus the subject of further emphasis in subsequent conventional developments regulating wartime conduct.<sup>78</sup> The three articles discussed below, in particular, reflect the universal expectations of the international community and they have contemporary vitality as norms pertinent to protection of the environment. However, they have been criticized as inadequate vis-a-vis the environment since they express normative standards in ambiguous terms, their principal orientation is the protection of narrowly defined "property", or non-belligerents, and derogations based on the principle of military necessity are permissible.<sup>79</sup> These conventional norms nonetheless afford implicit protection to the "environment", since they codify customary law principles and have been subject to the gloss of contemporary perspectives recognizing the natural environment as a legitimate and necessary object to be factored into the calculus of wartime strategies.<sup>80</sup>

The Regulations, *inter alia*, promulgate guidelines for the "Means of Injuring the Enemy, Sieges, and Bombardments", and in article 22 codified the fundamental customary

law principle of limitation which circumscribes belligerent's rights to injure the enemy.<sup>81</sup> In the spirit of this cornerstone principle of the laws of war, the following specific prohibitions, discussed seriatim below, are set forth in article 23:

In addition to the prohibitions provided by special Conventions, it is especially forbidden-. . . (a) To employ poison or poisoned weapons;. . . (e) To employ arms, projectiles, or material calculated to cause unnecessary suffering;. . . (g) To destroy or seize the enemy's property, unless such destruction or seizure be imperatively demanded by the necessities of war;. . .<sup>82</sup>

First, certainly banning the use of poison and poisoned weapons for humanitarian motives has an obvious indirect protective affect on the environment, as such methods of warfare have an adverse impact on elements of the environment generally, which ultimately are prejudicial to the well-being of humans. This circular dependence demonstrates the conceptual difficulties encountered in attempting to distinguish the "environment", for separate legal protection, from the human species which is an integral part of the global biosphere.<sup>83</sup> The prohibition on poison and poisoned weapons was a carry over from the earlier Hague Declaration 2 of 1899<sup>84</sup> and the expectations it expressed were too soon thwarted by the horrors of World War I, during which over one million casualties were cause by the use of toxic gases. Consequently, states reaffirmed and expanded their illegality in the 1925 Geneva Protocol on Chemical and Bacteriological Warfare,<sup>85</sup> which generally prohibited poisonous substances as well as use of bacteriological weapons.<sup>86</sup>

Second, our previous discussion of the duty imposed on belligerents by the customary law principles of humanity and limitation, not to inflict "unnecessary suffering", and the interplay among customary law principles, is equally applicable here as this provision is essentially a codification of the former principle.<sup>87</sup> At this juncture, we need only address more explicitly the applicability of article 23(e) to protection of the environment. One



view is that this provision "can be interpreted as prohibiting any destruction of the environment that will cause unnecessary suffering."<sup>88</sup> Thus construed the "provision is narrow in scope and offers limited protection under most circumstances" as the primary focus is on the relative "unnecessary suffering" inflicted on humans.<sup>89</sup> However, Leibler posits a broader interpretation which would prohibit "superfluous environmental damage" per se on the basis of the language of the authentic French text of article 23(e).<sup>90</sup> Leibler's rationale is as follows:

*Prima facie*, the use of the word "suffering" suggests that the principle is concerned with unnecessary harm to persons, excluding property damage or damage to the natural environment. However, the authentic French text of Article 23(e) uses the words "propres a causer des maux superflus" which are more accurately translated as "a nature to cause superfluous injury." The significance of this wording for present purposes is that the word "injury" is not limited to personal harm. It includes property damage, environmental damage, or damage to any "thing" as indicated by the following definition of "injury" in *Webster's Third New International Dictionary*: "**INJURY**: . . . the act or result of inflicting on a person or thing something that causes loss, pain, distress, or impairment."<sup>91</sup>

Hence, considering the apparent broader terms of the French text, as well as the international reactions and pending actions in connection with the wartime environmental damage caused by Iraq in the course of the Gulf War<sup>92</sup>, Leibler's analysis of article 23(e) appears to be consistent with the present trend in international law to protect the environment. Moreover, Leibler notes the subsequent joint usage of the terms "superfluous injury or unnecessary suffering" in article 35(2), of the 1977 Protocol I<sup>93</sup> and the preamble to the 1981 Inhumane Weapons Convention,<sup>94</sup> to further validate the propriety of the broader interpretation based on the equally binding French text.<sup>95</sup>

Both views, of course, have merit in the context of the Gulf War and reveal that article 23(e) does afford the environment some measure of protection. However, the general nature of the principle has raised doubts as to its practical effectiveness, doubts by enlarge

reinforced by the Gulf War experience.<sup>96</sup> One commentator thus assessed its weak normative force, except in the most odious cases, as follows:

Taken on its face value, the provision is couched in such vague and uncertain terms as to be barren of practical effects . . . (T)he way States have attempted to implement Article 23(e), either in military manuals or in the few cases where the rule was invoked, shows that no common consent has ever evolved among States as to the actual normative value of the principle.

Article 23(e) as it stands now plays in practice a normative role. . . in extreme cases (such as cases where the cruel character of a weapon is so manifest that nobody would deny it, or where evidence can be produced of gross, repeated and large-scale violations of the principle).<sup>97</sup>

Implicit in these observations is the balance of values inherent in the laws of war. Thus, state's approach to article 23(e) reveals that while states are committed to humanitarian values, including environmental protection, they have expressed their mutual obligations in the historic pattern<sup>98</sup> which allows for exercise of discretion to engage in wartime conduct, not otherwise in flagrant violation of principles, believed under the circumstances to be justifiable by military necessity.<sup>99</sup>

The final provision under consideration, that concerning enemy property, more clearly demonstrates the codification of the recognized balance of values within general conventional expectations. By its general terms the provision allows for the primacy of military considerations, but as previously discussed "military necessity" is not a license for unbridled destruction. The Gulf War provided the most recent opportunity for the expression of the general expectation of the international community that belligerents may not engage in destruction of "enemy property", unless "imperatively demanded by the necessities of war."<sup>100</sup> While some critics may view the latter qualification as lacking normative value and essentially a broad loophole for justifying environmentally destructive warfare activities,<sup>101</sup> the Gulf War experience and legal precedent supports the proposition that it is more appropriately characterized as a "*jus in bello* qualification

which is linked to normal standards of effective military operations rather than aggressive ambitions or scorched-earth policy."<sup>102</sup> In other words, the "necessities of war" (i.e. military necessity) is not a carte blanche for indiscriminate destruction of any nature as apparently engaged in by Iraq. This provision implicitly takes into account the principles of military economy which dictate, *inter alia*, that it is imprudent to unnecessarily expand resources, yours or those of the enemy under your control<sup>103</sup>, in illegitimate military objectives, objectives which are not reasonably linked with the defeat of the enemy.<sup>104</sup> In the Hostage Case, the court expounded the limiting nature of the principle of military necessity, illustrating the legally cognizable balance of values in the context of occupation activities. The court stated:

Military necessity has been invoked by the defendants as justifying the killing of innocent members of the population and the destruction of villages and towns in the occupied territory. *Military necessity permits a belligerent, subject to the laws of war, to apply any amount and kind of force to compel the complete submission of the enemy with the least possible expenditure of time, life and money.* In general, it sanctions measures by an occupant necessary to protect the safety of his forces and to facilitate the success of his operation. It permits the destruction of life of armed enemies and other person whose destruction is incidentally unavoidable by the armed conflicts danger, but it does not permit the killing of innocent inhabitants for purposes of revenge or the satisfaction of a lust to kill. *The destruction of property to be lawful must be imperatively demanded by the necessities of war. Destruction as an end in itself is a violation of international law. There must be some reasonable connection between the destruction of property and the overcoming of the enemy forces.* It is lawful to destroy railways, lines of communication, or any other property that might be utilized by the enemy. Private homes and churches even may be destroyed if necessary for military operations. It does not admit the wanton devastation of a district or the willful infliction of suffering upon its inhabitants for the sake of suffering alone.<sup>105</sup> (emphasis added).

Hence, article 23(g) protects the environment, again considered in its broadest sense, as enemy property, to the extent damage is not "imperatively demanded" on the basis of a "reasonable connection" to the submission of the enemy. As interpreted by the court, the

Regulations apparently require "that a country engaging in destruction have a degree of certainty that the particular military act will affect its desired target."<sup>106</sup> Also, the foreseeable damage must be proportional to the military gains sought to be achieved. This provision arguably provides substantial protection to the environment when characterized by its "component parts- that is, property in various forms, such as animal and plant life, real estate, beaches, and oceans-then determining whether environmental damage exists is simple."<sup>107</sup> However, deciding whether the damage caused is within the proscribed level is a difficult and highly debated issue, in other than flagrant violations, and one of the most problematic issues challenging the development of the law of environmental protection in warfare.<sup>108</sup>

The third article under consideration, article 55, clearly elaborates the obligations of an occupying state relative to "the environment in its component parts"<sup>109</sup> as highlighted by the court in the Hostage Case. It provides as follows:

The occupying State shall be regarded only as the administrator and usufructuary of public buildings, real estate, forests, and agricultural estates belonging to the hostile State, and situated in the occupied country. It must safeguard the capital of these properties, and administer them in accordance with the rules of usufruct.<sup>110</sup>

The rules of usufruct permit the occupying state "to enjoy all the advantages derivable from the use of property which belongs to another state."<sup>111</sup> While allowing for the beneficial use of the occupied state's resources, the article explicitly obligates the occupying state to "safeguard the capital of these properties", (e.g. not to cause waste). The only apparent exception to the obligations imposed by article 55 is "military necessity". As indicated by the court in the Hostage Case above, military necessity "... sanctions measures by an occupant necessary to protect the safety of his forces and to facilitate the success of his operation."

c. Status of the Environment under Hague law

Although the Regulations do not provide for explicit consideration of the "environment" in the conduct of hostilities on land, the foregoing discussion demonstrates that several pertinent articles of the Regulations have legitimate applicability to environmental protection. As illustrated, by codifying customary law doctrines, which proscribe inflicting unnecessary suffering and destruction of property not "imperatively demanded by the necessities of war," articles 23 and 55 provide far-reaching protection to the environment. The Regulations, as observed by Almond,<sup>112</sup> reflect the general expectations of states that in warfare destruction and human suffering should be kept to its necessary limits. These expectations have historic and fundamental roots as was commented by Montesquieu in his epic *The Spirit of the Laws*: "the Law of nations is founded on this principle that different nations ought . . . in time of war (do to one another) as little injury as possible without prejudicing their real interests".<sup>113</sup>

As illustrated by the Hostage Case *supra*, and by the unanimous adoption of the "Nuremberg Principles",<sup>114</sup> as well as by the ongoing efforts to obtain financial accountability for environmental damage from Iraq, these rules of the laws of war are not hollow. Moreover, their "prohibitions. . . are broad enough to envision the use of any methods based on any existing or new technology."<sup>115</sup> However, critics of the Regulations, and thus of customary law, highlight several aspects of the laws normative structure which raise difficulties and potential for abuse. First, there is the inherent balancing of interests in which the necessities of war are juxtaposed against other ambiguously framed principles. Second, the law leaves it up to each belligerent to exercise prudent discretion to determine the extent of permissible environmental damage.

Nonetheless, in practice states recognize their discretion is not unfettered, that within the agreed upon parameters, however vaguely stated, there must be a fair winner and an honorable loser. States generally adhere to the laws of war perhaps out of a deep sense of

humanitarian convictions and respect for the environment, but also because of the anticipated ramifications resulting from violations, including the consequences dictated by the principle of reciprocity. This principle is essential to the effectiveness of the laws of war as it sanctions in appropriate circumstances reprisals and retortion for illegal conduct or abuses of rights.<sup>116</sup> While the international community had no grounds to invoke these law of war remedies against Iraq during the Gulf War, its subsequent demand for accountability, particularly for the environmental damage under Resolution 687,<sup>117</sup> serves to reinforce the principle that wartime destruction is subject to the "reasonable connection" test underlying the principle of military necessity, as discussed in the Hostage Case. Prosecutions such as the Hostage Case although too rare,<sup>118</sup> and the ongoing process to hold Iraq accountable is part of the inter-state process of enforcement underlying the dynamic normative structure of the laws of war.<sup>119</sup> This state-driven process is explained by von Glahn as follows:

Each particular instance . . . must therefore be judged on its own merits. If honest conviction and corroborating factual evidence can be marshaled in support of a given application of (military necessity), well and good; but if it can be shown that dire urgency did not exist or that the violation undertaken did not materially and immediately contribute to military success, then any tribunal judging the case on hand would be bound to rule that a war crime had been committed.<sup>120</sup>

## 2. The Geneva Tradition

### a. Overview

The egregious violations of "human rights" during World War II, and the lack of precision and clarity in the laws of war as exemplified by war crime cases such as the Hostage Case,<sup>121</sup> provided momentum to pre-war initiatives for further development of the *jus in bello*, particularly with regard to the treatment of war victims.<sup>122</sup> The Hague Regulations, which primarily focused on the means and methods of warfare, had simply

incorporated by reference the Geneva law as the applicable law dealing with the sick and wounded.<sup>123</sup> Thus, the four Geneva Conventions of 1949 were the culmination of efforts, primarily on the part of the International Committee of the Red Cross (ICRC), to supplement and cure the normative shortcomings of the 1907 Hague Conventions and elaborate the existing Geneva law.<sup>124</sup> These in turn were supplemented in 1977 by two protocols. Protocol I, which is concerned with international armed conflict and protocol II, which elaborates Article 3 Common of the four Conventions, relating to "armed conflict not of an international character."<sup>125</sup> The four Geneva Conventions enjoy wide acceptance by states and are viewed as normative by the international community generally, thus "it is reasonable to assume that the Conventions are (at least in large part) declaratory of customary international law. This is particularly the case in respect of the general principles contained therein."<sup>126</sup> The Geneva Conventions, like their Hague Regulations counterparts, do not provide for explicit environmental protection. However, the Fourth Geneva Convention provisions considered below, likewise afford the environment indirect protection by prohibiting excessive wartime destruction. Moreover, as we will note the Geneva regime provides for enforcement of the legal obligations imposed by conventional law. Finally, we consider Protocol I provisions which explicitly provide for environmental protection in armed conflict, specifically articles 35 and 55, which essentially merged Hague law, concerning means and methods prohibitions, with Geneva law, the protection of war victims. We will briefly compare Protocol I with the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD), noting the context of applicability, including the issues relating to the threshold of prohibited environmental damage.

b. Geneva Convention IV

Articles 33 and 53 of the Fourth Geneva Convention are particularly relevant to environmental protection.<sup>127</sup> Article 53, for example, parallels the provisions of articles 46 and 55 of the Hague Regulations, concerning the obligations of an occupying state.<sup>128</sup> It provides:

Any destruction by the Occupying Power of real or personal property belonging individually or collectively to private persons, or to the State, or to other public authorities, or to social or cooperative organizations, is prohibited, except where such destruction is rendered absolutely necessary by military operations.<sup>129</sup>

The Geneva provisions similarly have been considered inadequate vis-a-vis protection of the environment because of their "narrow purpose" and limited scope of applicability.<sup>130</sup> The nature of the occupying state's obligation relative to the environment was previously discussed in connection with Hague Regulation, article 55, *supra*. However, for our purposes we should note that states explicitly continued the traditional balance of interests by reserving the right to cause "destruction . . . rendered absolutely necessary by military operations." Additionally, reflecting the stark realities of war, not even the presence of protected persons may foreclose the destruction of "points or areas" deemed proper military targets.<sup>131</sup> It should be recalled that this discretion to take measures required by "military necessity" is not a *carte blanche*. In this regard, the Geneva Conventions went a step further by explicitly providing for legal sanctions for violators by elaborating an enforcement mechanism to deter and redress violations of the law.

In contrast to Hague Convention IV which provided solely for state responsibility for violations of the Regulations,<sup>132</sup> the four Geneva Conventions, under common articles 49/50/129/146 respectively, provide for individual criminal responsibility, under which Parties are obligated to prosecute violators for acts identified as "grave breaches".



Further, states agree to "take measures necessary for the suppression of all acts "not considered "grave breaches". The enforcement regime essentially relies on the political will of the Parties, but there is a strict obligation to enact legislation imposing "effective penal sanctions for persons committing, or ordering to be committed," the acts defined as "grave breaches."<sup>133</sup> Presently, there are two conventional provisions which define acts encompassing environmental damage as "grave breaches". First, common articles 50/51/130/147 of the four Geneva Conventions respectively, explicitly include "willfully causing great suffering or serious injury to body or health,... and extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly."<sup>134</sup> Thus, environmental damage which may not be sufficiently "extensive" may still be actionable if willfully caused with reasonable certainty that it would lead to "great suffering or serious injury to body or health" to persons (or property) protected by the Conventions. The second provision is found in Protocol I and prohibits "launching an indiscriminate attack affecting the civilian population or civilian objects in the knowledge that such attack will cause excessive loss of life, injury to civilians or damage to civilian objects."<sup>135</sup> Essentially, these two provisions reinforce the customary principle of discrimination, which requires belligerents to attack only legitimate military objectives, and the principle of immunity of the civilian population also implicit in the St. Petersburg Declaration's mandate that "the only legitimate object . . . is to weaken the . . . enemy."<sup>136</sup> Finally, consistent with article 3 of the Hague Convention, the Geneva Conventions, by common articles, also impose absolute liability on state Parties for these "grave breaches".<sup>137</sup>

#### c. Protocol I

Protocol I illustrates the evolutionary character of the laws of armed conflict in relation to socio-political forces.<sup>138</sup> In consonance with the prevailing socio-political attitudes of

the international community in the early 1970's, the Protocol's ground-breaking environmental law of war provisions reflect two seemingly irreconcilable legal approaches to environmental protection in wartime: protection of the environment *per se* and protection of the environment because of its direct connection with traditional humanitarian law objectives, to minimize destruction and protect non-belligerents.<sup>139</sup> However, a critical look at Protocol I environmental provisions, while revealing a shift of states' attitudes in line with the contemporary trend to accord the environment greater protection, demonstrates a normative structure which is, with several exceptions of significance to the environment, consistent with the "overriding paradigm governing the laws of war . . . (which) flows from international customary law" and the Hague codifications discussed above.<sup>140</sup> In other words, although the Protocol progressively developed the *jus in bello* to explicitly include environmental impacts of wartime activities, the "new law" of Protocol I does not appear to significantly alter the deeply entrenched state-centered value system in which the security of the state and measures necessary for successful military operations enjoy higher precedence in the hierarchy of values.<sup>141</sup> Specifically, articles 35(3) and 55, while affording direct environmental protection in sweeping terms, provide for an ambiguous threshold of prescribed damage that for all practical purposes defer to state's discretion analogous to the principle of military necessity, although neither makes reference to this principle. Article 35, appearing under the section on "Methods and Means of Warfare", sets forth the "Basic rules", thus signaling the fundamental importance, at least in principle, attached to the environmental provision therein. The article restates the principles of limitation, proportionality and humanity, explicitly affirming the customary law that there is no unlimited right to choose means or methods to injure the enemy, and the duty of avoid causing "superfluous injury or unnecessary suffering". Under subsection (3), again stating a "basic rule", it provides: "It is prohibited to employ methods or means of warfare which

are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment."<sup>142</sup> Article 55(1), which appears in the chapter concerning protection of "Civilian Objects", employs similar language, as follows:

Care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition of the use of methods or means of warfare which are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population.<sup>143</sup>

The operative terms "widespread", "long-term" and "severe" are also employed, with slight variation, in the ENMOD Convention.<sup>144</sup> However, as noted by Leibler, there are three significant differences between the Convention and the Protocol which affect the scope of and mechanisms for ensuring environmental protection:

(1) The Convention prohibits acts which have "widespread, long-lasting *or* severe" effects, while the Protocol prohibits acts which have "widespread, long-term *and* severe" effects. This means that under the Convention, any one of the described effects separately is prohibited, but under the Protocol they must be cumulative.

(2) Under the Convention, environmental modification must be carried out "as the means" of destruction or damage. The Protocol, however, prohibits methods which "may be expected" to cause damage. In other words, the prohibition in the Convention is directed at deliberate environmental damage only, whereas the Protocol extends to objectively foreseeable collateral effects.

(3) The Convention was created within the framework of International Environmental Law, whereas the Protocol is part of the Law of Warfare. This is a critical distinction . . . because responsibility under the Law of Warfare entail far more severe consequences than it does under International Environmental Law.<sup>145</sup>

As usually occurs in difficult negotiations involving international agreements, the best result is often achievable by broad and ambiguous language, which accommodates the vital interests of heterogeneous states. Protocol I, appears to be no exception to the general draftsmanship practices encountered in international accords.<sup>146</sup> The operative terms highlighted above were not defined either in the Protocol or by collateral Understandings, as was attempted under the ENMOD Convention.<sup>147</sup> As noted by Ambassador Aldrich, "(e)ach of these provisions proved very difficult to negotiate, and the

resulting texts are often less clear than the subjects deserve." <sup>148</sup> During the Diplomatic Conferences, for example, the following diverse views "explaining" the meaning of the element "long-term" were recorded by Committee III:

(It) was considered by some (delegates) to be measured in decades. Reference to twenty or thirty years was made by some representatives as being a minimum. Others referred to battlefield destruction in France in the First World War as being outside the scope of the prohibition. . . It appeared to be a widely shared assumption that battlefield damage incidental to convectional warfare would not normally be proscribed by this provision. <sup>149</sup>

d. Status of the Environment under Geneva law

The foregoing discussion highlights the limitations of Protocol I, the most recent effort by states to update Geneva law to reflect contemporary values concerning environmental protection. The Protocol's limitations arise in part from the impregnable threshold issue of what is the "natural environment", which states have not yet found a common ground for definition in the context of conventional law. More importantly and problematic has been the issue of defining a precise threshold of prohibited environmental damage. The former was not defined at all, though there is general accord with the ICRC's approach to view the term in its broadest sense, to include the human environment. The broad language of Protocol I with respect to the triggering threshold of prohibited damage, on the other hand, reflects a political choice seemingly consistent with the general approach of states to the laws of war. <sup>150</sup> As exemplified by the Turkish Interpretative Statement to ENMOD, unable to reach agreement on specific obligations relating to the quantum of damage permissible, states explicitly reject narrow interpretations and assert the right to conduct military activities as permitted by traditional law of war principles. <sup>151</sup> Thus, in view of the Committee's report and the Declarations of governments severely limiting the scope of the articles prohibitions, leading commentators have echoed the general assessment that

articles 35(3) and 55 do "not impose any significant limitation on combatants waging conventional warfare. It seems primarily directed to high level policy decision maker and would affect such unconventional means of warfare as the massive use of herbicides or chemical agents which could produce widespread, long-term and severe damage to the natural environment."<sup>152</sup> Hence, absent an international consensus on the threshold of damage proscribed by the operative terms, and the fact that it has not been widely ratified and thus not reflective of customary law, it appears that Protocol I has limited efficacy in directly protecting the environment.<sup>153</sup> Consequently, "the earlier rules, especially those of the Hague Convention of 1907 and the Geneva Convention of 1949, continue to be very important."<sup>154</sup>

### *C. Applicability to the Environment*

The Geneva Convention IV, in concert with the Hague Regulations discussed *supra*, both reflective of customary law, are therefore the major substantive basis for proscribing wanton environmental destruction, however defined, as apparently engaged in by Iraq.<sup>155</sup> However, because the existing normative framework did not deter Iraq's assault on the environment, there have been suggestions for new conventional law specifically geared to protecting the environment during armed conflict. Professor Plant posits that one reason for new conventional law "governing the laws of war and the environment is the desirability of updating the law of war to reflect major developments in international environmental law as it applies in time of peace. Changes in state practice and the adoption of a large number of international environmental law instruments since the 1970s have reinforced the establishment or imminent emergence of a number of principles of customary international law."<sup>156</sup> We now turn to consideration of environmental law developments to assess the normative status of existing or emerging principles which have relevance in the context of wartime relations of states.

#### **IV. Environmental Law Norms**

##### **1. Overview**

Environmental law is a relatively new development in international law. It has evolved dramatically in the last several decades in response to the peacetime environmental problems and concerns of increasingly economically interdependent states challenged by rapid global industrialization and development. Since 1972 there has been a steady stream of international environmental instruments which have elaborated or codified norms of relevance to state wartime activities. One difficulty in evaluating their authoritative value in the context of warfare lies in the multiplicity of political-legal instruments promulgated by various internationally significant organizations. Many of these instruments are not legally binding in the classical sense, but under contemporary norm-building mechanisms may not be easily dismissed as not expressing the normative values of the international community.<sup>157</sup> Also, with the exception of ENMOD, environmental conventional law has been conspicuously silent regarding the status of the environment *per se* in armed conflict. Consequently, as previously stated, the nature and scope of existing obligations as between belligerents, and other international actors (e.g. neutral states, international organizations) under contemporary environmental norms is not yet settled, and is one area noted for further international discourse.<sup>158</sup> The current trend in this regard is "that peacetime obligations apply in principle also in wartime, subject to the application of the laws of war, and that they remain fully applicable to the relations between Belligerent and neutral third parties."<sup>159</sup> Moreover, there are conventional obligations encompassing the environment, some having the status of customary law, which arguably impose constraints upon belligerents regardless of their involvement in a conflict. For example, the U.N. Convention on the Law of the Sea.<sup>160</sup> Likewise, state practice may ratify peacetime environmental customary norms to an extent applicable to wartime activities under a Martens Clause rationale, and thereby impose

obligations subject to general principles of international state responsibility.<sup>161</sup> It is, however, beyond the scope of the present undertaking to visit in detail these diverse but related issues. They are mentioned here to underscore that this is an area of international law undergoing the fascinating and dynamic process of development and clarification.<sup>162</sup> Below we will simply trace the nature of environmental law developments to attempt to gain insight into general trends which undoubtedly will influence the future development of the law of environmental protection in armed conflict.

## **2. Stockholm Declaration: Principle 21**

The 1972 Stockholm Declaration<sup>163</sup> is widely viewed as the fountainhead of the environmental law stream. It marks a "new era of environmental consciousness among nations",<sup>164</sup> and the beginning of environmental law as a distinct branch of international law.<sup>165</sup> The following excerpt from its preamble provides a glimpse of the "new consciousness" and the scope of the emergent transcultural attitude towards the environment:

A point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequences. Through ignorance or indifference we can do massive and irreversible harm to the earthly environment on which our life and well-being depend. Conversely, through fuller knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes. There are broad vistas for the enhancement of environmental quality and the creation of a good life. . . . To defend and improve the human environment for present and future generations has become an imperative goal of mankind--a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of worldwide economic and social development.<sup>166</sup>

Implicit in the foregoing is the "basic percept of international environmental protection, . . . the principle of limitation, . . . the idea that the right of human beings to use, or abuse, the environment is not unlimited, . . . a relatively new phenomenon." <sup>167</sup> Although it is a non-binding instrument, the Declaration's "soft-law" status is politically

significant, and it has in fact contributed to the clarification of customary law norms.<sup>168</sup> Specifically, Principle 21, concerning state responsibility for transboundary pollution, affirmed and extended the peacetime environmental "doctrine of limitation",<sup>169</sup> memorialized as a keystone principle of international environmental law in the landmark decision of the Trail Smelter Arbitration.<sup>170</sup> Principle 21, as was the Trail Smelter case, is grounded on the "traditional regime of State Responsibility" which requires reparations for a "significant" harm arising from the breach of an international obligation.<sup>171</sup> Principle 21 supports limitation of and reparations for wartime environmental damage by codifying customary law principles as follows:

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.<sup>172</sup>

In comparison to the Trail Smelter principle, Principle 21 extends liability of states for "damage to the environment ....(of) areas beyond the limits of national jurisdiction." Thus, pollution to areas within the global commons, such as the high seas, presumably provides a basis for reparations to the international community.<sup>173</sup> The key issue for our inquiry is to what extent the Principle has applicability to wartime activities. The Declaration is fundamentally a political document which was entangled in the politics surrounding the Vietnam Conflict. It was shaped by contemporaneous political sensitivities which made it impracticable to include wartime environmental impacts among its principles. However, Stockholm was the catalyst for subsequent conventional developments, including the ENMOD Convention and Protocol I, which explicitly addressed wartime environmental damage.<sup>174</sup>



Nonetheless, considering the general terms of Principle 21 and the current trend to apply peacetime obligations to belligerent relations, we can not presumptively preclude its application to "significant" wartime environmental damage, particularly to the environment of neutral states and the global commons.<sup>175</sup> Application of the principle for "wrongful" wartime damage would also appear to be consistent with the analogous laws of war principle of limitation, as well as the I.C.J. holding in the Corfu Channel case, which supports the proposition that states have a good faith duty to avoid causing damages to other states, and to notify them of reasonably foreseeable hazards, an evolving norm in environmental law as suggested by contemporary conventional developments.<sup>176</sup>

Leibler suggests that in most conflicts the Trial Smelter principle as codified by Principle 21, would result in state liability for wrongful wartime environmental damage unless three criteria were shown.<sup>177</sup> To preclude a finding of wrongfulness a state must be exercising its legal right to use force (i.e. self-defense)<sup>178</sup> and commit the environmentally damaging act under "duress" or "necessity". "Duress" is established if there was no other means of saving lives and the act was proportional to the risks presented. While "necessity" permits the damage in order to secure "an essential interest of the state against a grave and imminent peril." Necessity also requires that the act "not seriously impair an essential interest" of the target state.<sup>179</sup> Establishing these "special circumstances" will be difficult for states, thus Leibler acknowledges that the possibility of having to pay reparations after the fact is not a satisfactory deterrent for states not to engage in conduct detrimental to the environment during the war.<sup>180</sup>

Moreover, a potential obstacle to application of Principle 21 to wartime environmental pollution is raised by the rule proposed by Article 26 of the ILC's draft articles on "International Liability for Injurious Consequences Arising out of Acts not Prohibited by International Law," which provides that "there shall be no liability . . . if the harm was directly due to an act of war (or) hostilities."<sup>181</sup> The future shape of this proposed

convention may influence the extent to which Principle 21 applies to wartime environmental pollution. Give its customary law status, however, it would appear that Principle 21 is yet another sources for a belligerent's duty not to unduly damage the environment so as to inflict "significant" harm to other states, including its opponent, or the global commons. Since it essentially embraces the peacetime principle of limitation, which parallels the analogous law of war principle of limitation, it also provides a viable theory for reparations for "significant" pollution, especially for neutral states, who may also rely on the customary rule of territorial immunity codified by Article 1 of Hague Convention V.<sup>182</sup>

Regrettably, the Security Council's lack of specificity in Resolution 687 fails to contribute to clarification of legal rights under environmental law norms, but the broad language of the Resolution requiring Iraq pay compensation for environmental damage is an important precedent, as is the established mechanism to enforce state responsibility for such damage arising out of illegal wartime conduct.<sup>183</sup> The compensation regime established by the Resolution provides a much needed forum for states to "co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction."<sup>184</sup> Hence, the present authoritative status of Principle 21, as the embodiment of the environmental peacetime principle of limitation, in the context of armed conflict is not all together clear, and because of its intrinsic similarity to the wartime principle of limitation may be in any event redundant.<sup>185</sup> These are issues still awaiting resolution via the mechanisms of authoritative decision-making.<sup>186</sup>

### 3. Emerging Norms

While compensation is the traditional remedy for breach of an international obligation, for environmental damage it is often an inadequate remedy. Thus, there is a discernible trend reflected in international environmental instruments to instill a precautionary approach to human activities to further the goals of resource conservation and minimization of environmental damage, taking into account states' present economic interests and human needs, as well as the interests of future generations.<sup>187</sup> These goals and ideals, which are subordinate to states' sovereign rights to manage and use natural resources within their territories, were explicitly embraced in the Stockholm Declaration and are the fundamental tenets underscoring subsequent environmental law developments. In particular, they have been echoed in General Assembly and other inter-governmental resolutions and declarations, which also specifically touched upon the environmental impacts of war or war related activities.

The 1980 General Assembly Resolution proclaiming the Historical Responsibility of States for the Protection of Nature, for example, noted "that the continuation of the arms race, including the use of various types of weapons, especially nuclear weapons, and the accumulation of toxic chemicals are adversely affecting the human environment and damaging the vegetable and animal world."<sup>188</sup> The Resolution called on states to consider these implications of the arms race and cooperate in measures to preserve nature on the planet.

The World Charter for Nature, which may be characterized as the General Assembly's environmental manifesto, and considered internationally as elaborating "soft-law" principles, provides as a General Principle that: "Nature shall be secured against degradation caused by warfare or other hostile activities." Principle 20, the implementing principle, "mandates" that: "Military activities damaging to nature shall be avoided."<sup>189</sup> The 1992 Rio Conference of heads of states, with the recent Gulf War experience as a

back drop, heighten these cultural and legal expectation by embracing Principle 21 of the Stockholm Declaration, and announcing Rio's Principle 24, that: "Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary."<sup>190</sup>

#### **4. Cultural Norms and Environmental Law**

This brief overview of major non-binding environmental instruments, demonstrates that cultural norms in favor of environmental protection in wartime are truly transnational. Hence, naturally world public opinion was overwhelmingly indignant of Iraq's environmental tactics, especially since it apparently had doubtful military value, as required by existing international law. States by participating widely in these elaborations of Principles and condemning deviant state behavior, and for the most part endorsing major General Assembly and Security Council Resolutions, such as Resolution 687, have manifested a measure of commitment to protect the environment within the framework of international law, a commitment in consonance with and instigated by prevailing cultural attitudes of states' national constituencies.<sup>191</sup> Although the environmental instruments discussed *supra* are not legally binding in the traditional sense, they nonetheless carry a qualitative measure of normative status because they generate political expectations of compliance with the "soft-law" obligations stated therein. These expectations to the extent they are reinforced by conforming state practice solidifying their normative status. Hence, this aspect of contemporary state behavior which essentially flows from a "sense of obligation or sense of being bound" has been described as one source of norms in the modern norm-building process.<sup>192</sup> Judge Guttal explains: "International law is law because it creates binding obligations. Binding norms emanate from the actions and proclamations of the States which find expression in the principal international forum- the

General Assembly."<sup>193</sup> This, of course, is one dimension of the very complex and diverse international law-making process. However, it has been a vital fountain of international environmental law, which has substantially developed via "soft-law" instruments. This method of norm-building is more politically palatable for states than traditional "hard-law" treaty obligations, permitting elaboration of general principles and broad obligations which allow for flexible responses to the uncertainties encountered in the quagmire of environmental issues.<sup>194</sup>

Moreover, not only have cultural norms favoring environmental protection been enshrined in the numerous Resolutions and Declarations, "(e)nvironmental protection is seen as an obligation to be enforced not simply because it is in an individual state's best interest, but because it benefits the broader interests of the community of states."<sup>195</sup> Thus, states have been motivated to develop conventional law covering such diverse subjects as world climate change, protection of the ozone layer, long-range transboundary air pollution, the protection of the marine environment under the Convention on the Law of the Sea, and the protection of treasured and irreplaceable cultural property.<sup>196</sup> A cursory look at these instruments, however, reveals that binding obligations are for the most part also characterized in broad and ambiguous terms analogous to the "soft-law" obligations, again reflecting states' desire for flexibility to adjust policies to the uncertainties of complex environmental phenomena.

## **Part V. Conclusion**

### **1. Law of Armed Conflict and Environmental Protection: The Present Balance**

Notwithstanding the vital common interests leading to the aforementioned specific conventional undertakings, and the hortatory mandates of "soft-law" instruments proclaiming protection of the environment a fundamental international public policy intricately linked with major community goals,<sup>197</sup> states have yet to develop or codify

comprehensive conventional law to directly protect the environment during armed conflict. The inherent frictions in cultural values and contradictory state policy goals<sup>198</sup> in the context of environmental impacts of warfare, have been resolved by giving precedence to the long-standing customary principles of the laws of war, as codified by Hague law and Geneva law, and progressively developed by ENMOD, the Inhumane Weapons Convention and Protocol I.

Although a case may be made that the laws of war promote to some degree the four policy goals enumerated by Captain Winter,<sup>199</sup> the laws of war built-in bias is to further states' individual policy interests in warfare, namely defeating the enemy, while allowing for reasonable collateral adverse effects to the global commons and environmental interests of other states. Although the "overriding paradigm governing the laws of war"<sup>200</sup> is not a carte blanche for wanton destruction of any nature, the Hostage Case affirmed it affords considerable latitude for military operations reasonably connected with defeating the opponent. Conduct inconsistent with the laws of war, as codified in the Hague Regulations and Geneva IV, simply allows the victim to seek reparations and the states to prosecute for "grave breaches." This historical balance of values and interests embraced by the modern *jus in bello* was ratified by the actions of its principal subjects and creators, the "community of states",<sup>201</sup> in the aftermath of the Gulf War. The debate concerning the illegitimacy of Iraq's environmental damage, putting aside Iraq's unprecedented blatant violation of the U.N. Charter's *jus ad bello* provisions as a peremptory basis,<sup>202</sup> took place principally within the framework of *jus in bello* principles.

In brief, the existing *jus in bello* framework censured Iraq's actions because the foreseeable damage was disproportionate to the marginal military advantage, and because it seemingly was purely spiteful acts of misplaced "reprisals" in the face of military defeat. The pollution of the Persian Gulf and destruction of hundreds of oil-well heads simply

could not be justified by any stretch of the principle of military necessity. International environmental law played but a peripheral part, as it is virtually devoid of explicit norms pertinent to wartime activities. The ENMOD Convention, had Iraq been a Party, would not have been triggered since "Iraq's actions only affected the climate and natural processes; they did not use the environment as a weapon," which is the gravamen of the Convention.<sup>203</sup>

Hence, the damage to the natural environment was condemned in the court of world opinion because it was inimical to the community's interests to protect and conserve the natural environment, including conservation of resources and the global commons. The outrage expressed was a manifestation of contemporary cultural attitudes echoed in environmental law instruments, which recognize the fundamental value of the environment, from an anthropocentric as well as biocentric perspective. The substantive legal framework for declaring the environmental damage illegal under international law, however, was furnished by the modern international legal regime embodied in the United Nations Charter, which embraces in a systemic sense the laws of war, customary as well as conventional.

The unprecedented institutional response by the Security Council under Chapter VII, authorizing military force to restore the sovereignty of Kuwait, and its imposition of political and financial accountability for damage to the environment under Resolution 687,<sup>204</sup> demonstrated the effective potential of the Charter regime as envisaged by the Framers. Additionally, General Assembly involvement also demonstrated a broader institutional, as well as global, response to wartime environmental damage. By adopting numerous Resolutions and encouraging ICRC initiatives on the subject, particularly Resolution 47/37,<sup>205</sup> states exhibited their disposition on the issue. Although Resolution 47/37 is nonbinding, it reflects and reinforces normative expectations by affirming existing customary principles and rules of international law.<sup>206</sup> Significantly, the Resolution

demonstrates the predominate disposition in the "community of states" regarding the legal approach to environmental protection during armed conflict. The Resolution explicitly embraced Principle 24 of the Rio Declaration,<sup>207</sup> reaffirming the general environmental values implicit in state's obligations to promote the fundamental international goals relative to environmental protection. However, it also ratified the existing balance of values by explicitly subjecting environmental protection to the existing normative framework of the laws of war. In this regard, the General Assembly stressed the importance of existing law, specifically "the rules of universal applicability laid down" in Hague Convention IV, Hague Regulations and Geneva Convention IV, and the "applicable rules" of Protocol I and ENMOD. The Resolution thus declared the Gulf pollution and oil-well head destruction a violation of "provisions of international law prohibiting such acts. . . .*Stressing that destruction of the environment, not justified by military necessity and carried out wantonly, is clearly contrary to existing international law.*" <sup>208</sup> (emphasis added).

Cognizant of the historical record of incidents of "overreaching" by states at war, with disastrous consequences to the environment and human beings, the General Assembly encouraged the ICRC to continue with initiatives to explore ways of improving the law of environmental protection in armed conflict,<sup>209</sup> particularly the development of a handbook of model guidelines for use in military manuals. The Resolution also promulgated the following four recommendations, which underscore the future developmental challenges for the *jus in bello* as it evolves to strengthened the regime of environmental protection during armed conflicts:

1. Urges States to take all measures to ensure compliance with the existing international law applicable to the protection of the environment in times of armed conflict;
2. Appeals to all States that have not yet done so to consider becoming parties to the relevant international conventions;



3. Urges States to take steps to incorporate the provisions of international law applicable to the protection of the environment into their military manuals and to ensure that they are effectively disseminated;
4. Requests the Secretary-General to invite the International Committee of the Red Cross to report on activities undertaken by the Committee and other relevant bodies with regard to the protection of the environment in times of armed conflict, and to submit to the General Assembly at its forty-eighth session, under the item entitled "United Nations Decade of International Law", a report on activities reported by the Committee.<sup>210</sup>

## **2. Future Prospects for The Law of Environmental Protection in War**

Given the current predisposition of states, even after the Gulf War experience, that the fundamental goal of environmental protection is best achieved under the existing normative framework of the laws of war, we now turn to the questions posed at the outset of our inquiry. Is the environment adequately protected by existing law or is new conventional law on wartime environmental protection needed? From the standpoint of progressively developing international law to achieve greater protection for the environment in armed conflict, the best perspective to both parts of the question is a qualified no.

Our discussion of the existing normative framework and specific norms relevant to environmental protection reveals a need for clarification and further development of norms and enforcement mechanisms to strengthen constraints on belligerent's conduct detrimental to the environment. For example, the challenge of elaborating what is encompassed by the prohibition in Protocol I not to cause "widespread, long-term and severe damage to the natural environment" and the ongoing process to hold Iraq accountable. Also, as indicated in Resolution 47/37 not all states have become parties to relevant treaties and some lag behind in implementing mechanisms to ensure compliance with existing obligations. However, new conventional law specifically geared to war's environmental impacts and correction of existing deficiencies does not at this time appear feasible due to lack of state interest. In any event, we may be misdirecting scarce

resources on efforts for new conventional law, as the process of its development is complicated by conceptual problems equivalent to those underlying the existing normative structure.<sup>211</sup> For example, how is the "environment" going to be defined and how will the prescribed quantum of environmental damage be determined? The ICRC Report succinctly framed the fundamental threshold issues in the context of Protocol I articles 35(3) and 55 as follows: "Indeed, damage to the environment is unavoidable in war. The point at issue, therefore, is where to set the threshold."<sup>212</sup> The available resources can perhaps be more efficiently directed at improving the existing international legal regime, which will concurrently promote the goals of both branches of international law by addressing the problems underscored by Resolution 47/37.

Moreover, the international community by adopting the laws of war principles as the guidelines for environmental protection in wartime, acquiesces in the inevitability of environmental damage. However, it has heretofore avoided or has been unable to elaborate a finite formula to determine reasonable damage. States have made the political choice, via long-standing and recently ratified authoritative decisions, to condone military operations consistent with the principles of war, with complete awareness that environmental damage may be caused to neutral states and the global commons. The reasonableness of each specific case is judged on its own merits by a state-driven process of scrutiny and accountability, based on the framework of the laws of war and general principles of international state and individual responsibility.<sup>213</sup>

A comprehensive convention on wartime environmental protection would be the ideal approach given the contemporary trend in environmental law to accord the environment protection against a wide-spectrum of human activity. However, the "community of states" is far from ideal and is not presently amenable to a conventional approach recognizing "nature's right" to the detriment of the "necessities of war". This is due in part because a restrictive environmental wartime regime is perceived as inimical to states'

distinct policy objectives, including the inherent right to take reasonable and necessary military measures in self-defense.<sup>214</sup> Thus, states make up an intrinsically political community, which at present is not motivated, lacking the requisite socio-political climate, to undertake the difficult task of developing such a convention.

Developments in international law clearly demonstrate that states are fully cognizant of the vital importance of the environment to a broad-range of human needs and interests, and the hazards presented by warfare. But their approach to binding commitments in favor of environmental protection has been generally gradual, cautious, and tentative. States' hesitancy to enter into concrete obligations relating to the environment in the context of warfare was strikingly illustrated by the highly qualified obligations of article 35(3), Protocol I and the attitudes of state representatives documented by Committee III relative to the interpretation of the element "long-term".

Nonetheless, environmental protection in armed conflict and strengthening the mechanisms to achieve that goal is clearly an important common objective for states, as reflected by the General Assembly's inclusion of this issue under its "Decade of International Law" agenda. Thus the ongoing process of developing the *jus in bello* has certainly not escaped the influence of contemporary cultural values encompassed in international environmental law. The challenge for international law is to strike a balance which harmonizes the friction of values inherent in the laws of war and environmental law. Since wars will likely continue to color inter-state relations, the goal is ~~to~~ to develop, or clarify existing norms, to explicitly promote "environmentally friendly" approaches in the conduct of armed conflict. Are there or should there be limits to military necessity in order to achieve an acceptable degree of explicit environmental protection?

The path to harmonization may be cleared by the similar philosophies embraced by the two branches of international law.<sup>215</sup> As noted above, both share an essentially analogous principle of limitation and they promote the community's value of conservation.

"Specifically, the laws of war conserve military forces and battlefield surroundings, while environmental laws conserve environmental resources. The mandates of conservation in both of these contexts are directed against mindless exploitation and destruction."<sup>216</sup> The fact that the process toward harmonization is taking place within the existing normative framework is reflected by Resolution 47/37, which reaffirms states' obligations under existing international law to consider environmental impacts of warfare activities. This state behavior is part of the authoritative decision-process, which over time assimilates the cultural values of the "recognized social forces of the time" into legal norms.<sup>217</sup> Thus, the balance attained between community environmental policies and the policies of individual states concern<sup>ed</sup> about sovereign rights in wartime, is a critical factor in the future development of favorable *jus in bello* environmental norms.

Hence, the laws of war normative framework and its evolution must be considered as a component of the broader modern international legal system, embodied in the United Nations Charter. The deficiencies underscored by the recommendations of Resolution 47/37 are too common to other branches of the legal system. Hence, in order to realize the goal of environmental protection in armed conflict, as defined by the authoritative decision-making process, by strengthening compliance with the laws of war, we must concurrently strengthen the modern international institutional structure created by the U.N. Charter. In this manner we will elevate the credibility of international law generally and institutionalize the concept of the "rule of law" as a peremptory norm to be observed by states. There is in this respect much work to be done to achieve the worthy goal of a world order under the Charter regime, based on respect for the community law. The fact that Iraq blatantly disregarded, as other states have done, the obligations of the Charter tells us systemic adjustments are in order. Obviously, in the contemporary state-system that can only happen with good faith cooperation and strong, fair leadership by the most influential countries.

Exploring these important issues and developments is beyond the scope of the present effort.<sup>218</sup> However, a quick glance at the record of activities documented in the U.N. Yearbooks, and the recent global commitments undertaken by the United Nations, particularly enforcing the Law of the Charter against Iraq, reveals that the "community of states" has stepped up to the plate to face the challenges of the post-Cold War Era to attempt to shape a better world order.<sup>219</sup> Its role in international life is magnanimous. While the United Nations has not always performed to the highest expectations, as the leading universal governmental body it is the appropriate forum for striking the value balances most conducive to peace and sustainable development.

Hence, of the available avenues, developing the "new" world order under the law of the U.N. Charter certainly seems to be the reasoned and prudent approach to environmental protection in peacetime, as well as in the hopefully increasingly rare armed conflicts which may occur under a more cohesive world legal order. Anarchy and global political polarization obviously are not in the best interests of mankind and law-abiding, peace-loving nations should resist the efforts of any nation bent on "going its own way".<sup>220</sup> In the evolving Charter regime, sovereign rights, peacetime or wartime based, will necessarily have to be redefined especially when they unreasonably and adversely impact the global environment to the detriment of the community interests. Striking a balance between these values more favorable to environmental protection in wartime is a substantial, but not impossible, developmental challenge for international law. Although states are not presently inclined to alter the traditional laws of war regime, the undertaking to explore the issue is an essential part of the laws evolutionary development. In time environmental interests may take precedence over less pressing wartime interests. However, global institutional stability is a fundamental precondition for achieving lasting peace, sustainable development consistent with environmental conservation, and a fair and equitable world order, the major goals and aspirations of the international community.<sup>221</sup>

1 McDougal posits that law is a process of authoritative decisions, encompassing "constitutive and particular public order decisions", based on shared community expectations. This process is not static as community values change over time. Thus viewed, international law is just one dimension of a larger "community process" which reflects a choice of alternatives of relevant decision-makers. The objective of this process being the attainment of a level of international public order. See Myres S. McDougal, *Jurisprudence For a Free Society*, 1 Ga. L. Rev. 1, 4-5, 14 (1966). McDougal described the international law-making process in the context of the law of the sea as follows:

From the perspective of realistic description, the international law of the sea is not a mere static body of rules but is rather a whole decision-making process, a public order which includes a structure of authorized decision-makers as well as a body of highly flexible, inherited prescriptions. It is in other words, a process of continuous interaction, of continuous demand and response, in which the decision-makers of particular nation states unilaterally put forward claims of the most diverse and conflicting character to the use of the world's seas, and in which other decision-makers, external to the demanding state and including both national and international officials, weigh and appraise these competing claims in terms of the interests of the world community and of the rival claimants, and ultimately accept or reject them. As such a process, it is a living, growing law, grounded in the practices and sanctioning expectations of nation-state officials, and changing as their demands and expectations are changed by the exigencies of new interests and technology and by other continually evolving conditions in the world arena.

*Editorial Comment: The Hydrogen Bomb Tests and the International Law of the Sea*, 49 Am. J. Int'l. L. 356-359 (1955) reprinted in Henry J. Steiner et. al., *Transnational Legal Problems*, 262 (4th ed., 1994)(hereinafter *Legal Problems*) See also, Christopher D. Stone, *The law as a force in shaping cultural norms relating to war and environment*, in *Cultural Norms, War and the Environment*, 64, 65-66 (Arthur H. Westing, ed.) (1988)(hereinafter, *Shaping cultural norms*) (suggesting that "the conception of laws as mere reflectors of cultural norms grasps only half the dynamic....In the international arena, too, there are instances in which laws and law-making can be regarded not as the product of pre-existing norms, but also rather as an integral part of the process of norm development and substantiation."

2 I will refer to the laws of armed conflict interchangeably with the traditional terms "laws of war", "humanitarian law" and *jus in bello*. The former is a more contemporary term which is used widely in discussions and modern conventions. The term armed conflict also encompasses situations other than the traditional state to state conflict, including measures short of full-blown hostilities and uses of force by non-state actors whose conduct under modern doctrines may be subject to the restraints imposed by the laws applicable to armed hostilities. See generally Karl Josef Partsch, *Armed Conflict*, in 3

Encyclopedia of Public International Law 25, 26 (Rudolf Bernhardt ed., 1982) (discussing the evolution of the term "armed conflict" and its essential differences from the term "war").

<sup>3</sup> These terms do not have generally recognized definitions in international law. The substantive definitions of these terms, as we will notice in relevant documents, and of related terms such as "human environment" and "environmental damage", may be classified into three categories: 1) "human-centric", where the environment is defined in terms of its relation to human; particularly its social and economic dimension; 2) "nature-centric" definitions which focus purely on environment factors, such as its processes or identifiable elements; and 3) definitions that combine elements of each of the above. David Tolbert, *Defining the "Environment"*, in *Environmental Protection and the Law of War: A 'Fifth Geneva' Convention on the Protection of the Environment in Time of Armed Conflict*, 257-259, G. Plant (1992)(hereinafter *Environmental Protection*). The definitional problem of what is the "environment" and how it is defined is a significant and most difficult threshold issue underlying the development of the laws under consideration. Detail consideration of this issue is beyond our present scope. The International Committee of the Red Cross (ICRC), for instance, in its Commentary on Protocol I, views the term "natural environment" used in Articles 35(3) and 55, discussed *infra* Part III, 2 (2)(2), in its "widest sense to cover not merely objects indispensable to the survival of the human population, such as foodstuffs,..., but also forests and other vegetation...as well as flora, fauna and other biological and climatic elements." Michael A. Meyer, *A Definition of the 'Environment'*, in *Environmental Protection*, *supra* at 255. Since the ultimate goal of humanitarian law is to minimize the destructiveness of warfare, both on the natural environment and the human beings who are a part of it, the author shares the view that these terms should be understood in their broadest sense so as to lead to their broad application thereby being conducive to the goal of humanitarian law. This premise underlies the use of these terms herein and no attempt is made to achieve a precise definition.

<sup>4</sup> *Shaping cultural norms*, *supra* note 1.

<sup>5</sup> Lothar Gundling, *Environment, International Protection*, in 9 *Encyclopedia of Public International Law* 122 (Rudolf Bernhardt ed., 1982). This may be said about the law generally, which in the final analysis reflects predominant socio-political values. *See supra*, note 1.

<sup>6</sup> See Friedman, Leon (ed.), *The Laws of War: A Documentary History*, 2 vol., Random House, New York (1972). Best, Geoffrey, *War and Law Since 1945*, Oxford University Press, New York (1994).



<sup>7</sup> Adam Roberts and Richard Guelff, *Documents on the Laws of War*, 1 (2nd ed. 1989) (hereinafter *Documents*).

<sup>8</sup> U.N. Charter art. 2(4). Article 51 (self-defence) and Chapter VII (Security Council enforcement actions) provide the only exceptions to this rule. *See generally*, Romana Sadurska, *Threats of Force*, 82 Am. J. Int'l L. 239 (1988). Oscar Schachter, *Self-Defense and The Rule of Law*, 83 Am. J. Int'l L. 259 (1989). Oscar Schachter, *The Right of States to Use Armed Force*, 82 Mich. L. Rev. 1620 (1984).

<sup>9</sup> U.N. Charter art. 2(3) imposes an obligation on states to settle their disputes by peaceful means. Chapter VI, *Pacific Settlement of Disputes*, establishes a framework for states and the United Nations to implement this obligation.

<sup>10</sup> *See generally*, Bernhart Graefrath, *Introduction to the Law of Conflictual Relations*, in *International Law: Achievements and Prospects*, 710, 711-714, (Mohammed Bedjaoui, ed.), UNESCO (1991). (hereinafter *Achievements and Prospects*). Franck, *Who Killed Article 2(4)? or: Changing Norms Governing the Use of Force by States*, 64 Am. J. Int'l L. 809, 811 (1970).

<sup>11</sup> *E.g.*, Geoffrey Best, *The historical evolution of cultural norms relating to war and the environment*, in *Cultural Norms, War and the Environment*, 18, 20 (Arthur H. Westing ed.) (1988) (hereinafter *Historical evolution*).

<sup>12</sup> In the case of nuclear exchange the futility of considering protection of the environment is axiomatic. Nuclear capable states have been unwilling to extend conventional norms to outlaw use of these weapons. For example, the 1977 Protocol I Additional to the Geneva Conventions of August 12, 1949, and Relating to the Protection of Victims of International Armed Conflicts (hereinafter *Protocol I*), the most recent update to the laws of war, which the United States has not ratified, was signed subject to explicit understandings that the Protocol rules were "not intended to have any effect on and do not regulate or prohibit the use of nuclear weapons." Understandings of United States and United Kingdom declared upon signature, *reprinted in Documents*, *supra* note 7, at 468, *Protocol I*, at 387. *See also*, George H. Aldrich, *Prospects for United States Ratification of Additional Protocol I to the 1949 Geneva Conventions*, 85 Am. J. Int'l L. 1, 14 (1991). While existing conventions may not include nuclear weapons within their scope, customary law principles may furnish reasonable grounds for restraining the first use of these weapons. *See infra*, Part III, 1. The question of the legality of nuclear weapons is pending before the International Court of Justice, which on September 6, 1993 was asked for an advisory opinion by the World Health Organization "in view of the health and environmental effects" such weapons would have.

<sup>13</sup> *See supra*, note 1.



<sup>14</sup> As noted by Westing, the dangers presented by warfare's impact on the environment are perhaps greater than at any other time in history. The advanced state of industrialization and development of most countries has radically changed the human environment. The modern environment is characterized by so-called "dangerous forces", (e.g. nuclear power plants, chemical factories, and dams, to name a few). These facilities contain hazards which if unleashed during armed conflict would cause "indirect damage to the human environment- often of huge proportions...." Arthur H. Westing, *Environmental Hazards of War in an Industrializing World*, in *Environmental Hazards of War* 1,4 (Arthur H. Westing ed.) (1990). (hereinafter *Environmental Hazards*). See generally, Stockholm International Peace Research Institute, *Warfare in a Fragile World: Military Impact on the Human Environment* 15 (1980) (table 1.2: Ecologically disruptive wars: a selection). Susan D. Lanier-Graham, *The Ecology of War: Environmental Impacts of Weaponry and Warfare* (1993) (historical survey of how armies have incidentally or intentionally destroyed the natural environment).

<sup>15</sup> Jozef Goldblat, *The Mitigation of Environmental Disruption by War: Legal Approaches*, in *Environmental Hazards*, *supra* note 14, 48. (hereinafter *Legal Approaches*).

<sup>16</sup> See *Historical evolution*, *supra* note 11. See also, *Documents*, *supra* note 7. p2-4. (discussing the development of the sources of the laws of war). See generally, Gerhard von Glahn, *Law Among Nations*, MacMillan Publishing Co., Inc. (4th ed., 1981) and *Legal Approaches*, *supra* note 15, (for overview of development of laws of war). The international law of war was first enunciated in the classical work of Hugo Grotius, *On The Law Of War And Peace (De Jure Belli ac Pacis)* (1625) .

<sup>17</sup> *Id.* at 19-20.

<sup>18</sup> Shilpi Gupta, *Iraq's Environmental Warfare in the Persian Gulf*, VI Geo. Int'l Env'tl. L. Rev., 251, 259 (1993) .

<sup>19</sup> E.g., Stephanie N. Simonds, *Conventional warfare and Environmental Protection: A proposal for International Legal Reform*, 29 Stan. J. Int'l L. 165 (1992) (hereinafter *Legal Reform*).

<sup>20</sup> Susan Emmenegger and Axel Tschentscher, *Taking Nature's Rights Seriously: The Long Way to Biocentrism in Environmental Law*, VI Geo. Int'l Env'tl. L. Rev., 545, 547 (1994). (hereinafter *Nature's Rights*) The authors review international environmental instruments (e.g. treaties as well as non-binding instruments such as declarations and proclamations) and deduce a developmental trend consisting of three different stages. First, instruments reflective of a "purely anthropocentric vision (protecting nature for the

good of presently living humans), to encompassing the interests of future generations and finally to acknowledging an intrinsic value of nature." In the latter case, there are two schools of thought with significance to the future development of environmental protection norms in the law of armed conflict; one that views nature as instrumentally valuable because of its usefulness to humans, and the second which regards nature as inherently valuable apart from human interest. See generally, Michael J. Glennon, *Has International Law Failed the Elephant?*, 84 Am. J. Int'l L. 1,7 (1990). Christopher D. Stone, *Should Trees Have Standing? Toward Legal Rights For Natural Objects*, 45 S. Cal. L. Rev. 450, 456 (1972). Christopher D. Stone, *Should Trees Have Standing? Revised: How Far Will Law and Morals Reach?* 59 S. Cal. L. Rev. 1 (1985). (suggesting conferral of legal rights to the natural environment). The first school of thought is the dominant ideology reflected in existing law of war. Hence, it has been posited that although general peacetime instruments, particularly binding conventions, may establish norms of environmental protection, these norms unless explicitly made applicable in wartime are part of the "*lex generalis*". The law of war as "*lex specialis*" takes precedence over inconsistent provisions of the "*lex generalis*" and therefore its norms provide the existing parameters for protection of the environment. L. C. Green, *The Environment and the Law of Conventional Warfare*, in 29 The Canadian Yearbook of International Law 222, 226 (1992).

<sup>21</sup> I refer here to the widely reported actions of the Iraqi military in Kuwait concerning the release of millions of barrels of crude oil into the Persian Gulf and setting fire to over 700 oil well-heads. The environmental impact of these actions on the natural and human environment drew worldwide condemnation. By most accounts, these tactics violated the laws of war and political "accountability" was manifested in Security Council Resolution 687. Though not necessarily supportive of a biocentric perspective and not explicitly based on violation of the *jus in bello per se*, the Resolution censured Iraq for these actions, reaffirming that Iraq "is liable under international law for any direct loss, damage, including environmental damage and the depletion of natural resources, or injury to foreign Governments, nationals and corporations, as a result of Iraq's unlawful invasion and occupation of Kuwait." (the last clause may suggest that liability is grounded on violation of the Charter *jus ad bello* provisions). U.N. Doc. S/Res 687 (1991) 8 April 1991 (emphasis added). See *supra*, text accompanying notes 8-10. The environmental damage caused by Iraq's actions and its present and future impact are thoroughly documented in, *The Gulf War Aftermath: An Environmental Tragedy*, Muhammad Sadiq and John C. McCain (eds.) (1993). Additionally, while we will focus primarily on Iraq's conduct causing environmental damage, the propriety of the Coalition's airstrikes of Iraqi civil and industrial infrastructure which caused environmental "collateral damage", has also been the subject of debate. There are those that maintain that damage of this nature is not appropriately characterized as an "environmental" question. This debate highlights the problematic threshold issue of defining what is the "environment". Professor Plant, a vocal proponent of the biocentric approach succinctly summarizes the conceptual difficulties as follows:

....Notwithstanding the difficulties involved in separating the "environment" from the

civilian population which lives in its environment and Adam Robert's conviction that this issue should be discussed as part of the environmental question, the environment has been and must, in my opinion, be treated as a separate matter from civilian objects, if only because much of it cannot be an "object" in the sense of ownership or subject-tion to national jurisdiction.

G. Plant, *Environmental Damage and The Laws of War: Points Addressed to Military Lawyers*, in *Effecting Compliance*, 159, 161-162 (Hazel Fox and Michael A. Meyer eds. 1993). Citing Adam Robert, *Failures in Protecting the Environment in the 1991 Gulf War*, in *The Gulf War and International Law*, (text under the heading "Coalition Military Actions") (Peter Rowe ed.) (Routledge, London-forthcoming). See also *supra*, note 3 discussing the threshold problem of defining the "environment".

22 The environmental devastation unleashed by Iraq had varying consequences on the environments of regional states as well as global ramifications. Security Council Resolution 687 affirmed Iraq's general liability in this respect, assuming a causal connection may be established between Iraq's actions and the injury claimed. See *supra*, note 21. Detailed analysis of this aspect of the subject is beyond our present scope, although we shall later discussed existing and emerging environmental norms that are relevant to this issue generally. See *Infra* Part IV, 2 (discussion on extension of liability for wartime environmental damage under international precedents holding one state liable for acts which have injurious effects upon third states, and also for damage caused by transboundary pollution which is a foreseeable consequence of modern warfare activities. Corfu Channel Case (UK v. Alb.) 1948 I.C.J. 4. Trial Smelter Arbitration (U.S. v. Can) 3 Int'l Arb. Awards 1095 (1938)) See generally, Richard L. Weiner, *Limited Armed Conflict Causing Physical Damage to Neutral Countries: Questions of Liability*, 15 Calf. W. Int'l L. Rev. 161 (1985).

23 "Custom is the oldest and original source of international law." 1 Oppenheim's International Law 25 (9th ed., 1992), See generally, Henry J. Steiner et. al., *Transnational Legal Problems* (4th ed., 1994). The customary law of armed conflict was the primary source of legal regulation until its codification commenced in the second half of the nineteenth century. Nonetheless, the customary rules continue to have great importance and vitality as binding rules of conduct and legal decision. Article 38(1)(b) of the Statute of the I.C.J. provides that the Court shall apply "international custom, as evidence of a general practice accepted as law." Thus, in the event a belligerent is not a party to an applicable treaty, the legality of its conduct is judged by prevailing customary law norms; which may, nonetheless be the applicable treaty norms if they have attain customary law status. E.g. Walter G. Sharp, Sr., *The Effective Deterrence of Environmental Damage During Armed Conflict: A Case Analysis of the Persian Gulf War*, 137 Mil. L. R. 1, 6 (1992) (hereinafter *Effective Deterrence*), citing North Sea Continental Shelf Case (F.R.G. v. Den.) (F.R.G. v. Neth.) 1969 I.C.J. 4., and article 38 of the Vienna Convention on the Law of Treaties ("Nothing ... precludes a rule set forth in a treaty from becoming

binding upon a third State as a customary rule of international law, recognized as such"). The obligatory nature of customary law is again highlighted in article 43 of the same Convention which provides, in part, that a party who denounces or withdraws from an applicable treaty is nevertheless under a duty "to fulfil any obligation embodied in the treaty to which it would be subject under international law independently of the treaty." Furthermore, Article 60(5) is especially significant in the context of warfare as it states that treaties of a humanitarian character continue in force in the event of a "material breach" by another party. U.N Document A/Conf. 39/27, 1155 U.N.T.S. 331. (hereinafter Vienna Convention LOT). The I.C.J. has specifically ruled that codification of customary rules does not displace the applicability of customary law which is *per se* binding on all states. Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States), I.C.J. Rep. 392 (1984), I.C.J. Rep. 14 (1986). See, e.g., *Documents*, *supra* note 7, at 4-5. See also, Legal Problems, *supra* note 1, at 303-306. (discussing the interrelationship between conventional law and development of customary law norms).

<sup>24</sup> Richard Falk, *The Environmental Law of War: an Introduction*. in Environmental Protection *supra* note 3, at 78, 85. (hereinafter *Environmental Law*).

<sup>25</sup> *Id.* at 84.

<sup>26</sup> *Documents*, *supra* note 7, at 4.

<sup>27</sup> Besty Baker, *Legal Protections for the Environment in Times of Armed Conflict*, 33 Va. J. Int'l L. 351, 360 (1993). (hereinafter *Legal Protections*).

<sup>28</sup> See *supra*, note 21.

<sup>29</sup> *Legal Protections*, *supra* note 27 at 360. Professor Falk analysis of the interplay of these principles is as follows: "In practice, military necessity has been subjectively defined in wartime, and has prevailed over inconsistent norms of customary international law associated with the legal duty to restrict methods and means of combat by reference to the capacity to distinguish military and non-military targets ('Principle of Discrimination'), to confine military responses to an orbit of proportionality ('Principle of Proportionality'), and to avoid tactics that inflict superfluous and severe suffering ('Principle of Humanity'). Submarine warfare, aerial bombardment, and atomic/nuclear weaponry illustrate the breach of these customary constraints by subjective invocations of 'military necessity'." *Environmental Law*, *supra* note 24, at 80. For discussions of military necessity see; Michael Bothe et. al., *New Rules for Victims of Armed Conflicts, Commentary on the Two 1977 Protocols Additional to the Geneva Conventions of 1949*, at 196-97, art. 35.2.3.3. (1982); Bernard K. Schafer, *The Relationship Between the International Laws of Armed Conflict and Environmental Protection: The Need to Reevaluate What Types of Conduct are Permissible During Hostilities*, 19 Cal. W. Int'l L. J. 287, 288 (1989).

<sup>30</sup> For example, international economic law has to deal with definitional problems as well. The General Agreement on Tariffs and Trade uses terms such as "like product", "like domestic products" and "treatment no less favorable" that are in context equally ambiguous and which are applied and interpreted according to commercial expectations emanating from state practice. See John H. Jackson et. al., *Legal Problems of International Economic Relations*, 444, 501-503, 521-530. See also *supra*, notes 3 and 21, discussing general difficulties with defining the concept of "environment" in international law.

<sup>31</sup> Hilaire McCoubrey and Nigel D. White, *International Law and Armed Conflict*, 342, (Dartmouth) (1992). (hereinafter, *International Law and Armed Conflict*).

<sup>32</sup> See *supra* note 1.

<sup>33</sup> Lucien J. Dhooge, *At The Crossroads: The United Nations and Armed Intervention in the 1990's*, at 44 (1995) (LL.M. unpublished thesis, on file with author).

<sup>34</sup> *International Law and Armed Conflict*, *supra* note 31, at 342. See also, Documents, *supra* note 7, at 5-6.

<sup>35</sup> Dieter Fleck, *Legal and Policy Perspectives, in Effecting Compliance* 143, 144 (Hazel Fox and Michael A. Meyer eds., 1993). (hereinafter *Policy Perspectives*)

<sup>36</sup> *Legal Protections*, *supra* note 27, at 360.

<sup>37</sup> *Id.*

<sup>38</sup> *Environmental Law*, *supra* note 24, at 85. See also, *supra* note 23, discussion on the role of customary law generally.

<sup>39</sup> *Id.*

<sup>40</sup> See, e.g., *Effective Deterrence*, *supra* note 23, at 28-30.

<sup>41</sup> William A. Wilcox, Jr., *Environmental protection In Combat*, 17 S. Ill. U. L. J. 299. 303 (1993). See Part III, 2(B)(b) *infra*, text accompanying notes 90-94, for discussion regarding application of concept of "unnecessary suffering" to environmental damage.

<sup>42</sup> *Policy Perspectives*, *supra* note 35 at 145. Citing Hannikaine, *Peremptory Norms (Jus Cogens) in International Law: Historical Development, Criteria, Present Status*, 713 (1988).

<sup>43</sup> Hague Convention (IV) Respecting the Laws and Customs of War on Land and Annex Thereto Embodying Regulations Respecting the Laws and Customs of War on Land, Oct. 18, 1907, 36 Stat. 2277; T.S. No. 539. (hereinafter Hague Convention IV and Hague Regulations). *reprinted in*, Documents, *supra* note 7, at 4,44. Hague Convention IV made slight revisions to the earlier Hague Convention II with Respect to the Laws and Customs of War on Land, July 26, 1899, 32 Stat. 1803; T.S. No. 403, and the Regulations annexed thereto (Hereinafter Hague Convention II). Hague Convention IV, article 4, states that it replaced Hague Convention II as between parties to both conventions. Hague Convention II, however, continues in effect as to 18 states which have not ratified Hague Convention IV. Although, these non-parties are also bound by Hague Convention IV provisions which are now generally considered customary law. *See supra*, note 23, and *infra* note 75 and accompanying text. In most respects the conventions are identical. *See infra*, Part III, 2(B) for discussion of Hague Convention IV provisions relevant to environmental protection.

<sup>44</sup> Documents, *supra* note 7, 45.

<sup>45</sup> *Id.* at 4.

<sup>46</sup> G. Plant, *Introduction to Environmental Protection*, *supra* note 3, at 17. *See also*, *Legal Reform*, *supra* note 19 at 192. (discussing Martens Clause as basis for authoritative incorporation of environmental norms into customary law of armed conflict). *Legal Protections*, *supra* note 27, at 351-352. (asserting that international law limits environmental damage not only because it harms humans," but also because the "dictates of public conscience" and principles of law increasingly recognize that the environment should be protected in its own right. " Citing Protocol I conference debates, notes some delegates viewed wartime environmental protection as "an end in itself". Other delegates viewed protection as means to secure "the continued survival of the civilian population." 15 Official Records of the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts 358 (1978).

<sup>47</sup> *See supra* note 1.

<sup>48</sup> *See infra* Part IV, Environmental Law Norms.



49 Glen Plant, *Elements of a 'Fifth Geneva' Convention on the Protection of the Environment in Time of Armed Conflict*, in *Environmental Protection*, *supra* note 3, at 41.

50 *Id.*

51 *See supra* note 46.

52 *Nature's Rights*, *supra* note 20, at 568-572 (explaining the emerging non-anthropocentric paradigm and nature's own rights).

53 *See Nature's Rights*, *supra* note 20, at 547-548. The author's explain the basis of the paradigm shift theory as follows:

The conception of humankind's relation to nature depends upon whatever theory we have with regard to the natural order and our place in it. *See John Rawls*, *A Theory of Justice* (1971). This theory then becomes our environmental paradigm when we think about nature. A paradigm shift, therefore, includes a reevaluation of our relationship with the rest of nature.

The theory of paradigm shifts as a sequence of events leading to major changes (revolutions) in scientific knowledge dates back to the work of Thomas Kuhn. Kuhn uses paradigms as a framework to describe and analyze world views and their effects on people's conceptualization and information processing. Thomas S. Kuhn, *The Structure of Science Revolutions* 111-35 (2d ed. 1970). Our environmental paradigm include how we see our relationship to nature, if and how we control nature, and whether we limit our actions because of nature. Paradigm shifts as opposed to other shifts of perspective are multidimensional, i.e., affect different areas of society, knowledge, and value at the same time. *See Richard Routley*, *Roles and Limits of Paradigms in Environmental Thought and Action*, in *Environmental Philosophy* 260-293, 271, 275, 278 (Robert Elliot & Arran Gere eds. 1983). In other words, to realize the peace with nature, changes are necessary in all areas of thought. Klauss Michael Meyer-Abich, *Wege Zum Frieden Mit Der Natur. Praktische Naturphilosophie Fur Die Umweltpolitik*, 11 (Munchen 1986).

*See also, supra* note 20 and accompanying text.

54 *Id.*

55 *See supra*, text accompanying notes 27-30. *See infra*, note 198 (discussing policy strategies of states in international law).

<sup>56</sup> See *Environmental Law*, *supra* note 23, at 81. Professor Falk describes one dimension of this norm-building process and the descriptive problem thus raised as follows: (T) he strengthening and developing of international law often occurs in the aftermath of a prominent war in which the victorious side was the victim of belligerent practices that fell outside its views of the canons of military necessity and exceeded permissible limits upon methods and means of warfare. Because the impact of such practices is exerted both upon the interpretative process pertaining to existing law and upon the reformatory process that generates new law, it is sometimes difficult to distinguish the reinterpreted from the innovative when describing the content of the law of war. *Id.* See generally, Grigory Tunkin, *A New Political Thinking and International Law*, in *International Law In Transition* (R.S. Pathak and R.P. Dhokalia eds. 1992) ("A new thinking ... means that we all have to change our approach to many problems of society to make it adequate to the new realities... The new political thinking is trying... to find ways of resolving these problems... They include in particular, the notion of the inter-State system, its components, what changes are taking place and should take place in their relationships, etc.") *Id.* at 177-178.

<sup>57</sup> R.H.F. Austin, *The Law of International Armed Conflict*, in *Achievements and Prospects*, *supra* note 10, 783, 766. See also, *supra* note 1 and accompanying text. (discussion relative to international law-making process).

<sup>58</sup> *Environmental Law*, *supra* note 24, at 86. See *infra*, Part IV *Environmental Law Norms*, discussion regarding development of environmental law as a distinct subject of international concern.

<sup>59</sup> Ronald St. John MacDonald, *The Use of Force by States in International Law*, in *Achievements and Prospects*, *supra* note 10, at 717.

<sup>60</sup> *International Law and Armed Conflict*, *supra* note 31, at 209.

<sup>61</sup> *Supra*, note 43. See also, Part III, 2 (survey of conventional law).

<sup>62</sup> *International Law and Armed Conflict*, *supra* note 31, at 217. But see, Chris Af Jochnick and Roger Normand, *The Legitimization of Violence: A Critical History of the Laws of War*, 35 Harv. Int'l L.J. 49 (1994); and, Roger Normand and Chris Af Jochnick, *The Legitimation of Violence: A Critical Analysis of the Gulf War*, 35 Harv. Int'l L.J. 387 (1994) (challenging the "widespread belief" of the humanitarian nature of the laws of war. The authors concluded in their first article, that the laws of war institutionalize violence at the expense of humanitarian values. Specifically, they attempt to illustrate, that the "Hague Conferences, which crowned the legal codifications of the nineteenth century and were generally hailed as humanitarian milestones for subjecting war to the discipline of law, in fact enshrined the priority of military over humanitarian considerations." From



their perspective, the "powerful nations deliberately formulated the laws of war to advance the primacy of military violence over humanitarian concerns, despite noble rhetoric to the contrary." *Id. Compare with, Effective Deterrence, supra* note 23, at 30 (stating that the laws of war "are not subject to, or restricted by, the principle of military necessity ....(instead military necessity) is subject to, and restricted by, the laws of armed conflict.") *See also, supra* text accompanying notes 38-41.

63 *Plant, supra* note 21, at 163. *See also supra, Legal Reform* note 19, at 170. The reader should also bear in mind these variable zones of conflict in the application of customary law norms, principally in zones other than those which belong to the belligerent whose conduct is questionable. This qualification is necessary because conventional law allows belligerents almost complete latitude for military activities within their own territories. State sovereign rights, that time honored core principal of the international legal framework, is most evidently controlling and defining the limits of constraining norms. Perhaps we are to infer that the vigorous hold of self-interest will motivate states toward moderate conduct in the heat of battle when deciding to destroy their own property and resources, including their natural environment. Regrettably, the annals of war are filled with accounts of states sacrificing dearly, their property, environment, and even their citizens, for the sake of what they defined as militarily necessary. From this perspective, the imperative was essentially either do the devastating act and "justify" the losses, or lose the war. The historical record convincingly demonstrates that for the most part self-preservation and the existing *status quo* have higher precedence in the states' hierarchy of relative values. *See also, Part V infra. See generally, Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies, 610 U.N.T.S. 205, reprinted in 6 I.L.M. 386* (concerning obligations for the peaceful exploration and use of outer space).

64 *See supra*, note 56 and accompanying text.

65 *Legal Approaches, supra* note 15, at 48. *See generally, e.g., Protection of the Environment in Times of Armed Conflict. Report of the Secretary-General. U.N. Doc. A/47/328* (provides general overview of existing law provisions relating to environmental protection).

66 The limited scope of the present undertaking necessitates narrowing the present survey to consideration of land-based armed conflict rules which are relevant to protection of the environment. Most wars are fought on land and their potential devastation presents the greatest threat to human beings and the natural environment. Thus, land-based conflicts offer ripe opportunities to assess alternatives for development of the law of armed conflict to further contemporary values relative to environmental protection. Additionally, environmental aspects of land-based warfare, also permits consideration of general principles of the law of armed conflict, which are pertinent to potential environmental damage in other battlefield zones. In any event, the general premises underlying the

author's thesis also have applicability to zones of conflict other than land. The author posits that existing law of armed conflict and the general international law regime, including the legal framework of the U.N. Charter, provides a flexible legal regime which accommodates evolving values.

For example, consider Iraq's pollution of the Persian Gulf from the perspective of customary law and relevant conventional norms. Based on our analysis of customary law norms we may deduce that the high seas environment, as well as the environment of Kuwait's "occupied" sea, is protected from wanton, unnecessary damage during armed conflict. *See supra* Part III, 1. We next question whether the oil dumping was proportional to the military objective sought to be achieved. Another way of asking the question is whether the military benefits expected to be achieved, are outweighed by the foreseeable adverse consequences. The international reaction and demand for accountability, as well as a reasonable assessments of the costs and benefits involved, bears out overwhelmingly that the oil discharge can not be justified by any calculation of military necessity. It would be, in my opinion, an unreasonable stretching of this admittedly elastic concept when considered in the overall context of Iraq's military situation. Essentially, Iraq unleashed a "weapon" over which it could not exercise effective control and which had a very low probability to "weaken the enemy". St. Petersburg Declaration of 1868, *infra* note 67 and accompanying text. Having no control over the Gulf's currents and winds, the foreseeable disproportionate environmental harm *per se*, as well as the severe health and economic consequences on non-belligerents and neutrals, would appear to dictate that Iraq not resort to indiscriminate oil dumping. Consequently, Iraq violated the customary principles of discrimination, proportionality and humanity. The limitation principle, which is binding on Iraq, dictates that right to inflict damage is not unlimited. Also, the legitimacy of these acts under existing and emerging environmental law norm, is questionable. *See* Part IV *infra*. Environmental Law Norms. *E.g.*, Gupta, *supra* note 18, at 254-266.

Moreover, and in support of my thesis that existing law provides a normative basis for environmental protection, it is pertinent to highlight that had the U.N. Convention on the Law of the Sea (LOS) been in force during the war, it entered into force in November 1994, it would have provided a legal theory for holding Iraq responsible for environmental damage to the marine environment, even assuming *arguendo* that Iraq had a viable military necessity defense. Under article 192 of the LOS convention, arguably a "*lex specialis*" (*see supra*, note 20) on equal footing of obligation with the laws of war, Iraq as a party to the convention would have a general obligation "to protect and preserve the marine environment." (the author perceives a potential conflicts of law issue, if we were dealing with two *lex specialis* conventional norms- in this instance that is not the case. Here, the treaty norm entails a more pressing binding obligation breach of which gives rise to state responsibility over special customary norms, which are not generally viewed as *jus cogens*). *See supra*, note 23, Vienna Convention LOT (article 26 (*pacta sunt servanda*), article 53 (treaties conflicting with a peremptory norm of general international law) and article 64 (emergence of a new peremptory norm of general international law). Also, article 194 imposes a duty to "take...all measures...that are

necessary to prevent, reduce and control pollution of the marine environment from any source,...." Moreover, article 235 affirms the responsibility of states "for the fulfillment of their international obligations concerning the protection and preservation of the marine environment. But, the article reflects one institutional weakest inherent in the international legal framework, which again we will take up in Part V *infra*, and which makes adoption of biocentric conventional norms applicable during armed conflict a fantastic endeavor, by expressing that states "shall be liable in accordance with international law." And, of course, "States shall co-operate in the implementation of existing international law and the further development of international law relating to responsibility and liability for the assessment of and compensation for damage...." United Nations Convention on the Law of the Sea, *reprinted in* 21 I.L.M. 1293 (1982). The Kuwait Regional Convention for the Cooperation on the Protection of the Marine Environment from Pollution (Kuwait Convention), to which Iraq is a party, has analogous provisions which proscribe the pollution of the Gulf, however it also has a weak regime for ensuring compliance essentially identical to article 235 of the LOS convention. *E.g.*, Gupta, *supra* note 18, at 263-264. Kuwait Convention, Apr. 28, 1978, *reprinted in* Selected Multilateral Treaties in the Field of the Environment 486 (A. Kiss ed., 1983).

67 1868 St. Petersburg Declaration Renouncing the Use, in Time of War, of Explosive Projectiles Under 400 Grammes Weight. *reprinted in, Documents, supra* note 7, at 30. (hereinafter St. Petersburg Declaration). The author arbitrarily commences this survey with this widely lauded international instrument as it has a more tangible connection to the subject of environmental protection during armed conflict. The Declaration was the precursor to the "Hague law" branch of the law of armed conflict, which addresses the rights and duties of belligerents during armed conflict and limits the means and methods of injuring the enemy. However, it should be noted that there were several relevant codification conventions prior to the St. Petersburg Declaration. For instance, The Declaration of Paris of 1856, considered the "first law-of-war multilateral treaty", dealt with rules of maritime blockade during war to promote certainty in economic relations between belligerents and neutral states, and thus elaborated the Law of Neutrality. *See generally*, Weiner, *supra* note 22 and Best, *infra* note 69. Also, a most important, as well as lasting, development occurred in 1864 with the adoption of the first Geneva Convention, thus marking the beginning of the "Geneva tradition" branch of humanitarian law. Geneva Convention, 1864, 22 Stat. 940, *reprinted in* Friedman, *The Law of War: A Documentary History* (1972). The 1864 convention, as are the 1949 Geneva Conventions, was underscored by humanitarian concerns for the prevention and mitigation of unnecessary suffering and death of victims of war. Austin, *supra* note 57, at 776-777. *See*, Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, Aug. 12, 1949, T.I.A.S. No. 3362; Convention for the Amelioration of the Condition of the Wounded, Sick and Shipwrecked Members of Armed Forces at Sea, Aug. 12, 1949, T.I.A.S. No. 3363; Convention Relative to the Treatment of Prisoners of War, Aug. 12, 1949, T.I.A.S. No. 3364; Convention Relative to the Protection of Civilian Persons in Time of War, Aug. 12, 1949, T.I.A.S. No. 3365, 6 U.S.T. 3516, 75 U.N.T.S. 287

<sup>68</sup> Documents, *supra* note 7, at 29. *See also, supra* text accompanying notes 25-27.

<sup>69</sup> Geogfrey Best, War and Law Since 1945, 42 (1994). *See also, supra* text accompanying note 44. (The Preamble to the Hague Convention IV which also reflects this general draftsmanship approach.)

<sup>70</sup> Documents, *supra* note 7, at 30-31.

<sup>71</sup> Anthony Leibler, *Deliberate Wartime Environmental Damage: New Challenges For International Law*, 23 California Western International Law Journal 67, 100-101 (1992).

<sup>72</sup> Documents, *supra* note 7, at 30. Conventional limitations on the use of certain weapons has a direct protective effect on the environment by limiting the means available to belligerents for prosecution of military objectives. For example, the use of land mines and incendiary weapons is restricted by Protocols to the 1981 Inhumane Weapons Convention and the first use of chemical and biological weapons is proscribed by the 1925 Poisonous Weapons Protocol. United Nations Conference on Prohibitions or Restrictions of Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects. UN Doc. A/Conf. 95/15 (1980), *reprinted in* 19 I.L.M. 1523-36, *supra* note 7, at 473. Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, June 17, 1925, 94 L.N.T.S. 655, *reprinted in, supra* Documents note 7, at 139.

<sup>73</sup> *See supra*, note 43. (background discussion on Hague Conventions II (1899) and IV (1907). We will focus on Hague Convention IV, relating to land warfare, and more specifically on its Regulations relevant to environmental protection. The Second Hague Peace Conference of 1907 adopted thirteen conventions and one declaration, but not all their work related directly to development of the laws of war, and one convention did not enter into force. Nonetheless, the contracting states refined Hague law and further developed conventional law of war. Other contemporaneous conventions with significance to development of the laws of war and tangentially related to the subject under discussion, but beyond our present scope, include: Hague Convention No. III Relative to the Opening of Hostilities, Oct. 18, 1907, 36 Stat. 2277, T.S. No. 539; Hague Convention V Respecting the Rights and Duties of Neutral Powers and Persons in Case of War on Land, Oct. 18, 1907, 36 Stat. 2310, T.S. No. 540. *Reprinted in, Documents supra* note 7, at 63. Hague Convention IX Concerning Bombardment by Naval Forces in Time of War, *Id.* at 94. Hague Convention XIII Concerning the Rights and Duties of Neutral Powers in Naval War. *Id.*, at 110.

<sup>74</sup> Austin, *supra* note 57, at 778. This is not to imply that there was no groundwork laid for these international initiative and achievements. Actually, the Lieber Code of 1863,

authored primarily by Francis Lieber, is regarded as the first modern codification of laws of armed conflict. Drafted at the behest of President Lincoln, it was implemented under General Orders, No. 100, "Instructions for the Government of Armies in the Field", by the Union Army during the American Civil War. The Lieber Code elaborated generally established rules of war, *inter alia*, the treatment of civilians and prisoners of war. The Code was extremely influential and was improvised in other national codes and in the Hague Regulations. *See generally, supra* Green, note 20, at 223; and, *The Theory and Conduct of War*, 29 Encyclopedia Britannica Macropoedia 642.

<sup>75</sup> E.g., James P. Terry, *The Environment and the Laws of War: The Impact of Desert Storm*, XLV Naval War C. Rev. 61, 62. The Regulations were applied and considered "declaratory of the laws and customs of war" applicable to all states by the International Tribunal at Nuremberg. *Id.*, citing International Military Tribunal (Nuremberg), "*Judgment and Sentence*", 41 Am. J. Int'l L. 172 (1947). *See generally*, Anthony D'Amato, *The Concept of Custom in International Law* 113-121 (1971). *See supra*, text to note 23, Vienna Convention LOT (article 43). Essentially, the Regulations customary law status effectively renders nugatory article 2 of the Convention, the reciprocal application clause, which stated that the Regulations were only binding as between Contracting Powers, and article 8, its denunciation provision. Documents, *supra* note 7, at 46-47. In the case of Iraq, the Regulations are binding as customary law since Iraq is not a party to Hague Convention IV. When the convention was signed on October 18, 1907, Iraq was part of the Ottoman Empire a non-party to the convention. From 1919 until 1932, Iraq a mandate territory of the United Kingdom, but England "apparently never acceded" to the convention on Iraq's behalf. E.g. *supra*, Sharp, note 23, at 8-9.

<sup>76</sup> *See supra*, text accompanying note 58.

<sup>77</sup> Harry H. Almond, Jr., *Protecting The Environment*, 23 U. Tol. L. Rev. 295, 337 (1992).

<sup>78</sup> E.g., The 1923 Hague Rules of Aerial Warfare; The 1936 London Proces-Verbal Relating to the Rules of Submarine Warfare Set Forth in Part IV of the Treaty of London, 22 Apr. 1930; The 1948 Convention on the Prevention and Punishment of the Crime of Genocide, Dec. 9, 1948, 78 U.N.T.S. 277; The four 1949 Geneva Conventions; The 1954 Hague Convention and the 1954 Hague Protocol for the Protection of Cultural Property in the Event of Armed Conflict. *See generally* Documents, *supra* note 7.

<sup>79</sup> E.g., Simmons, *supra* note 19 at 107-171. Other provisions, not discussed in detail herein, which provide a basis for a duty not to damage the environment in the specified circumstances, have been similiarly critiqued. These include: Article 25: The attack or bombardments, by whatever means, of towns, villages, dwellings, or buildings which are undefended is prohibited. Articles 28 and 47, respectively: The pillage of a town or place,



even when taken by assault, is prohibited. (and) Pillage is formally forbidden. Articles 46 and 56, respectively; Family honor and rights, the lives of persons, and private property, as well as religious convictions and practice, must be respected. Private property can not be confiscated. (and) The property of municipalities, that of institutions dedicated to religion, charity and education, the arts and sciences, even when State property, shall be treated as private property. All seizure of, destruction or willful damage done to institutions of this character, historical monuments, works of art and science, is forbidden, and should be made the subject of legal proceedings. *Id.* See generally *supra*, Documents note 7, at 53, 56-57. (text of articles). Davis P. Goodman, *The Need for Fundamental Change in the Law of Belligerent Occupation*, 37 Stan. L. Rev. 1573 (1985)

<sup>80</sup> See *supra*, Sharp, note 23 at 9-12, 32. It is posited that this interpretative process supports my thesis that the existing legal regime is adaptable to changing social attitudes which mature into authoritative norms. Here, it is pertinent to recall that states acknowledged this was not a "complete code of the laws of war" and that traditional modalities of norm-making in inter-state relations (i.e. customary law) continued to be a significant source constraint on belligerent conduct. Clearly it was understood that the laws of war would continue to develop. Accordingly, the general prohibitions in the Regulations were eventually subject to evolving interpretations to cover "cases" (e.g. values) arising from belligerent's progressive capabilities to engage in conduct contrary to "the rule of the principles of the law of nations, as they result from the usages established among civilized peoples, from the laws of humanity, and the dictates of the public conscience." See *supra*, Part III, 1(B) (discussion on applicability of customary law to environmental protection and the significance of the Martens Clause in the law-making process, including the infusion of environmental norms into the laws of war).

<sup>81</sup> Hague Convention IV, Section II- Hostilities, Chapter I. *Supra*, Documents note 7, at 52. Article 22, the first article in this chapter, provides: "The right of belligerents to adopt means of injuring the enemy is not unlimited." See *supra*, text accompanying notes 26-29, 36-37, 40-42 (discussing significance of limitation principle as constraining belligerent conduct and applicability to environmental damage). (Almond notes that this general principle is, "in large measure, an adaptation of the principle of military necessity,...." Almond, *supra* note 77 at 337.)

<sup>82</sup> *Id.*

<sup>83</sup> See *supra* note 3 (discussion regarding alternative ways of defining the "environment" and the threshold issue this difficulty presents to the future development of the law of armed conflict.)

<sup>84</sup> Hague Declaration 2 Concerning Asphyxiating Gases, 1899, *reprinted in* Documents, *supra* note 7 at 36.

85 Goldblat, *supra* note 15 at 49-50. This Protocol, which has been ratified by over 100 nations, is considered by Goldblat to be lacking in the following manner: 1) its non-use obligation is limited to "war" vice "armed conflict" the latter being a more inclusive contemporary term, 2) it has a reciprocal obligation clause making it binding only "as between" state parties. The protocol has been subject to reservations limiting obligations thereunder to prohibit "first use", allowing for retaliatory use; and, more fundamentally, there is relative uncertainty as to what substances are properly within the protocol's scope. Moreover, the banning of biological and toxin weapons was also the subject of the 1972 Bacteriological and Toxin Weapons Convention. *Id.* Granted, while far from comprehensive, and putting the difficult problems of interpretation aside, this protocol to the extent it constraints belligerent conduct and promotes humanitarian values, also indirectly benefits and protect the environment.

86 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (1925); *reprinted in*, Documents *supra* note 7 at 139, 137.

87 *See supra*, Part III, 1 text accompanying notes 25-29, 37, 40-42.

88 Sharp, *supra* note 23, at 10.

89 *Id.*

90 Leibler, *supra* note 71, at 100.

91 *Id.*, citing 1907 Hague Convention IV, art. 23(e), Webster's Third New International Dictionary 1164 (17th ed. 1976).

92 *See supra* note 21. Although Iraq is not a party to the Hague Convention IV, its damage to the environment nonetheless come within its normative constraints as it essentially codifies customary law. However, in a technical sense the convention is not available as the legal basis to allege a breach of international obligations.

93 Discussed, *infra*, Part III, 2(2)(c).

94 *See supra*, note 72. As discussed there, the weapons limitations embodied in the Protocols to this Convention have an indirect environmental protective affect. The ICRC summarized its role in environmental protection as follows: "This Convention was concluded under the United Nations auspices and is intended, as its name implies, to prohibit or restrict the use of certain weapons. It has three annexed protocols dealing

with: (a) non-detectable fragments, (b) mines, booby-traps and other devices, and (c) incendiary weapons. The second and third of these should make useful contributions to protecting the environment in times of armed conflict." International Committee of the Red Cross and Secretary General, Protection of the Environment in Times of Armed Conflict. Report of the Secretary General, U.N. Doc. A/47/328 (31 July 92). (hereinafter ICRC Report).

<sup>95</sup> Leibler, *supra* note 71, at 100.

<sup>96</sup> See *supra* note 21 (general discussion on divergent views of legality of Gulf War environmental impacts).

<sup>97</sup> Antonio Cassese, Means of Warfare: The Traditional and the New Law, The New Humanitarian Law of Armed Conflict, 162-163 (1979), *cited in* Leibler, *supra* note 71, at 100-101.

<sup>98</sup> See *supra*, text accompanying note 69 (Best notes, in assessing the St. Petersburg Declaration, the historical pattern of qualification and ambiguity of language which marks the development of the laws of war).

<sup>99</sup> This practice of states in which essentially they hold all the cards and apply the rules to sanction acts under the banner of military necessity has monumental significance to legal approaches for environmental protection during armed conflict. Essentially, it becomes a matter of competing policy choices striking at the very core of the state's political sovereignty. We explore the implications of this aspect of state behavior in Part V.

<sup>100</sup> See *supra*, note 21.

<sup>101</sup> E.g., Simmons, *supra* note 19 at 171 (arguing that while under international law "property" includes land and airspace, it does not include outerspace).

<sup>102</sup> *Policy Perspectives*, *supra* note 35, at 144-145. See also, Antoine Bouvier, Protection of the Natural Environment in time of Armed Conflict, 285 Int'l Rev. Rec Cross 567, 572 (1991) (Considers Art. 23(g) one of the earliest provisions for protection of the environment).

<sup>103</sup> See *infra*, text accompanying note 109, (discussion regarding obligations of Occupying Power).

<sup>104</sup> See generally, Annotated Supplement to Commander's Handbook on the Law of Naval Operations, pg 5-8. (Naval Warfare Publication, NWP 9.) Extended consideration



of this subject is beyond our present purpose, but it should be recognized that it is an integral part of the philosophy underlying the laws of war. For example, as stated above among the central principles of military economy is the principle of economy of force, which "means that no more-or less-effort should be devoted to a task than is necessary to achieve the objective. This implies the correct selection and use of weapons and weapons systems, maximum productivity from available weapons platforms, and careful balance in the allocation of tasks. This principle is embodied in the fundamental legal principle of proportionality." *Id.*

105 The Hostage Case (United States v. Wilhelm List et al.), 11 TWC 1253-54, *reprinted in Id.* at 5-4 -- 5-5. This case involved the practice of "collective punishment" justified as a "reprisal" measure, in which civilians in varying numbers and places were executed in response to the killing of German soldiers and acts of sabotage by resistance movements. Collective punishment and hostage taking was not solely a German practice during World War II, but the German occupation forces carried the practice to new heights. Best describes the general context of the case as follows: "The scale on which hostages had sometimes been killed and collective punishments inflicted was judged to have been excessive, intimidating, and terroristic; some would have added, quasi-genocidal. The acts picked out for censure were not reprisals in the proper understanding of the term, they were retaliations going beyond legal limits of reasonable proportion and just discrimination. The judges in USA v. List et al. condemned them but less forcefully than they might have done had the relevant law not been so inexplicit and ambiguous." Best, *supra* note 6, at 312-313. See also *infra*, note 116 and accompanying text (defining reprisal and its role as an effective deterrent against illegal wartime conduct). See generally, Davis P. Goodman, The Need for Fundamental Change in The Law of Belligerent Occupation, 37 Stan. L. Rev. 1573 (1985).

106 Gupta, *supra* note 18, at 257. See note 66 for discussion of this issue in the context of Iraq's pollution of the Persian Gulf.

107 Sharp, *supra* note 23 at 32.

108 *Id.* The threshold of permissible damage has been dealt with in two conventions, Protocol I and the 1977 ENMOD Convention, discussed *infra* Part III, 2(2)(c).

109 Sharp, *supra* note 23, at 11.

110 Documents, *supra* note 7, at 57.

111 Terry, *supra* note 75, at 66, note 5.

112 Almond, *supra* note 77.

113 Cited in, Austin, *supra* note 57, at 788 note 10.

114 The Nuremberg Charter and the Judgment of the International Military Tribunal at Nuremberg after World War Two must be considered as part of the legal milieu in which the modern laws of war operate. They are significant because they affirmed customary law, as well as established, key principles relating to individual war crime liability. For example, article 6(b) of the Charter affirmed the customary law rule that violations of the laws of war created individual criminal responsibility. Under article 6, liability could be extended to "leaders, organisers, instigators and accomplices participating in the formulation or execution of a common plan." Also, Article 8, laid to rest the theory of "superior orders" as a defense to war crimes. The "Nuremberg Principles" were affirmed by the U.N. General Assembly on 11 December 1946. G.A. Res. 95(I), 1(2)R.G.A. 188 (1946)(affirming "the principles of international law recognized by the Charter of the Nuremberg Tribunal and the judgment of the Tribunal.") See generally, e.g., Leibler, *supra* note 71, at 114.

115 Sharp, *supra* note 23, at 12.

116 Best, *supra* note 6, at 311, 420-421. Reprisal may be defined as "a measured, purposeful, unlawful act in response to an unlawful act of the enemy's; illegal though the reprisal may be, its justification is that nothing less will serve to stop the other in his lawless track. The purpose of reprisals is suppose to be simply deterrent and admonitory. Retortion is the technical term for retaliation for discourteous, or unkind and inequitable acts by acts of the same or a similar kind." *Id.*, at 311.

117 See *supra*, note 21.

118 See *supra*, note 105 and accompanying text.

119 See *supra*, note 1 and accompanying text.

120 Von Glahn, *supra* note 16, at 604. Extensive consideration of illegal environmental damage as a basis for individual war crime liability is beyond our present scope. However, it is part and parcel of the existing enforcement regime which remains largely untapped. See *supra*, note 114 (discussion on Nuremberg principles) See also, *infra* Part IV(2)(B). (discussion of Geneva Conventions common articles relative to war crime prosecutions for "grave breaches") and Part V, Environmental Protection: Future Prosecutes under the Laws of Armed conflict. (discussion on straightening the existing legal regime). With respect to state accountability for violations of the Regulations, Article 3 of Hague

Convention IV, which states the general customary rule of state responsibility for breaches of international obligations, provides: "A belligerent party which violates the provisions of the said regulations shall, if the case demands, be liable to pay compensation. It shall be responsible for all acts committed by persons forming part of its armed forces." Documents, *supra* note 7, at 46. The author is keenly aware that when speaking of environmental damage, compensation may be incalculable as elements of the environment are not amenable to market based principles of valuation and also not susceptible to replacement costs analysis. Environmental clean-up costs and restoration of the natural environment are, however, subject to recoupment. Thus, a preventive approach to averting excessive environmental damage, I believe, is a critical element of a legal regime for environmental protection in armed conflict. For the reasons argued in Part V, the author believes that the exiting normative framework, while in need of further elaboration to achieve that goal, provides the best preventive approach, short of an outright prohibition against harming the environment which under existing socio-political conditions is unrealistic.

121 See *supra*, note 105.

122 Documents, *supra* note 7, at 169.

123 Chapter III- The Sick and Wounded- article 21, provides: "The obligations of belligerents with regard to the sick and wounded are governed by the Geneva Convention." The applicable convention was the 1906 Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armies in the Field, which replaced, as between parties to both, the first Geneva Convention of 1864 (*see supra*, note 67). Documents, *supra* note 7, at 52.

124 Geneva Convention I for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, Aug. 12, 1949, T.I.A.S. No. 3362; Geneva Convention II for the Amelioration of the Condition of the Wounded, Sick and Shipwrecked Members of Armed Forces at Sea, Aug. 12, 1949, T.I.A.S. No. 3363; Geneva Convention III Relative to the Treatment of Prisoners of War, Aug. 12, 1949, T.I.A.S. No. 3364; Geneva Convention IV Relative to the Protection of Civilian Persons in Time of War, Aug. 12, 1949, T.I.A.S. No. 3365, 6 U.S.T. 3516, 75 U.N.T.S. 287. *Reprinted in* Documents, *supra*, note 7, 171-337. Since our inquiry is limited to examination of the existing norms relating to environmental protection during land-based warfare activities, we will primarily focus on Convention IV. However, as discussed *infra* Part III,2(2)(b), there are articles common to each of the four conventions which establish an enforcement regime with potential applicability to promoting environmental protection in armed conflict.

125 Documents, *supra* note 7, at 172, 170. Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (hereinafter Protocol I). Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II). *reprinted in* Documents, *supra* note 7, at 389 and 449, respectively. Protocol II is not relevant to our study as the traditional *jus in bello* does not apply in internal conflicts. However, while it has not provisions concerning the environment, it provides protections analogous to instruments applicable in international armed conflict, thus providing incidental protection to the environment during internal strife. For example, article 14- Protection of objects indispensable to the survival of the civilian population- provides: "Starvation of civilians as a method of combat is prohibited. It is therefore prohibited to attack, destroy, remove or render useless, for that purpose, objects indispensable to the survival of the civilian population, such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works." Documents, *supra* note 7, at 456. *See generally, supra* ICRC Report note 94, at 7.

126 Documents, *supra* note 7, at 170.

127 Article 33, addresses the problem presented by the Hostage Case and parallels the Hague Regulations prohibition on pillage. It provides that: No protected person may be punished for an offense he or she has not personally committed. Collective penalties and likewise all measures of intimidation or of terrorism are prohibited. Pillage is prohibited.

128 *See supra* text accompanying notes 109-111 (discussion on article 55) and note 79 (for text to article 46).

129 Geneva Convention IV, Documents *supra*, note 7 at 290.

130 *E.g.*, Simonds, *supra* note 19, at 172. *Citing* the International Committee of the Red Cross Commentary as follows: (The objective was to)"protect a strictly defined categories of civilians from arbitrary action on the part of the enemy, and not from the dangers due to the military operations themselves. Anything tending to provide such protection was systematically removed from the convention." Commentary on the IV Geneva Convention, at 10 (Jean S. Pictet ed., 1958). *See also, supra* Leibler, note 71, at 106 (noting article applies only in event of occupation, "if an air-force bombs factories in an enemy country, such destruction is not covered by Article 53. Only if the enemy power occupies the territory where the factories are situated will such destruction be prohibited- and only to the extent that such destruction is not necessitated by military operations.")

131 Article 28 cautions belligerents not to use non-belligerents as shields: "The presence of a protected person may not be used to render certain points or areas immune from military operations." Documents, *supra* note 7, at 283.

132 *See supra*, note 120. (discussion of Article 3, Hague Convention IV, imposing obligation to make compensation for violating the Regulations).

133 Articles 50/51/130/147 provide as follows:

The High Contracting Parties undertake to enact any legislation necessary to provide effective penal sanctions for persons committing, or ordering to be committed, any of the grave breaches of the present Convention defined in the following Article.

Each . . . Party shall be under the obligation to search for persons alleged to have committed, or to have ordered to be committed, such grave breaches, and shall bring such persons, regardless of their nationality, before its own courts. It may also, if it prefers, and in accordance with the provisions of its own legislation, hand such persons over for trial to another . . . Party concerned, provided such . . . Party has made out a *prima facie* case.

Each . . . Party shall take measures necessary for the suppression of all acts contrary to the provisions of the present Convention other than the grave breaches defined. . . .

. . . . Documents, *supra*, note 7 at 323 (Geneva Convention IV).

134 Documents, *supra* note 7, at 323.

135 Protocol I, *supra* note 125, art. 85(3)(b). This provision is subject to two qualifications: 1) the act must be "willfully" committed and result in "death or serious injury to body or health. 2) only state parties are bound to treat these acts as "grave breaches". *See generally*, Leibler *supra* note 71, at 114-115.

136 *See supra*, text accompanying notes 25 and 70.

137 Common articles 51/52/131/148 provide: No . . . Party shall be allowed to absolve itself or any other . . . Party of any liability incurred by itself or by another . . . Party in respect of breaches referred to in the preceding Article. Documents, *supra* note 7, at 324.

138 Protocol I was negotiated in the early 1970's, soon after the Stockholm Conference of 1972, the widely recognized catalyst for the emergence of environmental law as a distinct branch of international law. Discussed *infra*, Part IV, Environmental Law Norms. The Protocol, however, has not been universally adopted. The United States has signed but not ratified the agreement primarily because of "political" objections to Article 1(4), a provision purportedly according the protections of the Protocol to "terrorists" groups involved in national liberation movements. Thus, while many of its general provision are reflective of customary law, generally flowing from their Geneva law roots, some,

including the environmental law provisions discussed below are not considered as binding customary law, and apply only as between Parties to the Protocol. *E.g., see generally, Aldrich, supra* note12.

139 Simonds, *supra* note 19, at 172.

140 Richard Carruthers, *International Controls on the Impact on the Environment of Wartime Operations*, in *Environmental and Planning Law Journal* (Feb 1993) 38, 41. *See generally, supra* Part III. There are two provisions which provide expansive protection to the environment: 1) article 55(2) provides: "Attacks against the natural environment by way of reprisals are prohibited." 2) article 56 -protection of works and installations containing dangerous forces- provides in part: "1. Works or installations containing dangerous forces, namely dams, dykes and nuclear electrical generating stations, shall not be made the object of attack, even where these objects are military objectives, if such attack may cause the release of dangerous forces and consequent severe losses among the civilian population. Other military objectives located at or in the vicinity of these works or installations shall not be made the object of attack if such attack may cause the release of dangerous forces from the works or installations and consequent severe losses among the civilian population."

Paragraph two sets forth specific exceptions which "leave minimal scope for divergent interpretation". Liebler, *supra* note 71, at 108. The protected areas enjoy qualified immunity, which ceases to apply when the named works and installations are "used for other than its normal function and in regular, significant and direct support of military operations" and attacking it is the "only feasible way to terminate such support." Other provisions remind the *parties to the protocol* that "(i)n all cases, the civilian population and individual civilians shall remain entitled to all the protection accorded them by international law, including the protection of the precautionary measures" necessary to "spare" civilians from the adverse impacts of military operations, and that reprisals against the protected areas are prohibited (*See, article 57- precautions in attack*). Documents, *supra* note 7, at 418-419. (emphasis added: these provisions of the protocol are not considered reflective of customary law). Liebler, *supra*.

141 Aldrich, *supra* note12, at 14.

142 Documents, *supra* note 7, at 409.

143 *Id.*, at 418.

144 ENMOD has been characterized as a "disarmament treaty" which deals with use of the environment as a weapon in war. Carruthers, *supra* note 140, at 46. It is binding on 55 states, including those countries, such as the United States, Soviet Union successor states, England, Japan, Germany with the technological base necessary to potentially carry



out the acts proscribed by the convention. Liebler *supra* note 71, at 81. While we will not discuss all its aspects in detail, its role in international law and its similarity of terms with Protocol I are worthy of note to appreciate the disparity in opinions regarding permissible quantum of environmental damage in warfare. The following articles of the Convention are relevant background for purposes of the comparison with Protocol I which follows: Article I.

1. Each State Party to this Convention undertakes not to engage in military or any other hostile use of environmental modification techniques having *widespread, long-standing, or severe* effects as a means of destruction, damage or injury to any other State Party.

2. Each State Party to this Convention undertakes not to assist, encourage or induce any State, group of States or international organization to engage in activities contrary to the provision of paragraph 1 of this article.

Article 2:

As used in article 1, the term "environmental modification techniques" refers to any technique for changing- through the deliberate manipulation of natural processes- the dynamics, composition or structure of the earth, including its biota, lithosphere, hydrosphere and atmosphere, or outer space. Documents, *supra* note 7, at 370-380. (emphasis added).

145 Liebler, *supra* note 71, at 110. *See supra*, notes 132-137 and accompanying text. (discussion on individual and state responsibility under the Geneva Conventions and Hague Convention IV). *See generally*, Aldrich, *supra* note 12.

146 *See supra*, text accompanying notes 30-34. (discussion concerning definitional problems and draftsmanship practices in connection with the process of authoritative decision making).

147 In an Understanding, "intended exclusively for this (ENMOD) Convention and ... not intended to prejudice the interpretation of the same or similar terms if used in connection with any other international agreement", Parties interpreted the operative terms as follows:

a) "widespread": encompassing an area on the scale of several hundred square kilometers;  
b) "long-standing": lasting for a period of months, or approximately a season;  
c) "severe": involving serious or significant disruption or harm to human life, natural and economic resources or assets. Documents, *supra* note 7, at 377. However, these interpretations were not universally accepted and, like the Convention itself, is not considered customary international law. The Turkish Government's position toward this ambiguity of terminology is representative of the general approach of states in these situations: In the opinion of the Turkish Government the terms "widespread", "long-lasting" and "severe effects" contained in the Convention need to be clearly defined. So long as this clarification is not made the Government of Turkey will be compelled to interpret itself the terms in question and consequently it reserves the right to do so as and



when required. Liebler, *supra* note 71, at 83. *Citing Turkish Interpretive Statement, in Multilateral Treaties Deposited with the Secretary-General: Status as at (sic) 31 December 1989, at 836, U.N. Doc. ST/LEG/SER. E/8 (1990).*

148 George Aldrich, *New Life for the Laws of War*, 75 Am. J. Int'l L. 764, 778 (1981).

149 CDDH/215/Rev., 1, para 27, Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, Official Records (1974-1977). *Reprinted in Liebler, supra* note 71, at 111.

150 *See supra*, note 3. (discussion on approaches to defining the "environment" and the ICRC views on the meaning of "natural environment" as used in articles 35(3) and 55.

*See also*, note 69 and accompanying text. (highlighting the long-standing pattern of "qualification and adaptation" inherent in the conventional development of the laws of war).

151 It is clear from the Understandings attached to the Protocol, however, that nuclear weapons are not considered with the scope of or regulated by this Protocol's prohibitions. *See supra*, notes 12 and 147.

152 M. Bothe, K. J. Partsch & W. A. Solf, *New Rules for Victims of Armed Conflicts*, para. 2.7, 348. (1982)

153 *See supra*, note 140 discussion on articles which provide expansive protection to the environment.

154 ICRC Report, *supra* note 94, at 5.

155 *See supra*, Part III, 1(A)(B) and (2)(c), customary law applicability to environmental protection and discussion of status of the environment under Hague law. Since Geneva law complements and parallels the Hague Conventions, the observations there are also pertinent here.

156 Glen Plant, *Elements of a New Convention on the Protection of the Environment in Time of Armed Conflict*, in *Environmental Protection, supra* note 3, 183, 187.

157 *See* G.H. Guttal\*, *Sources of International Law: Contemporary Trends*, in *International Law in Transition*, 183. (R.S. Pathak and R.P. Dhokalia eds. 1992) (the author discusses the contemporary significance of resolutions by the U.N. organs, *inter alia*, as sources of legally binding norms, arguing that in view of their growing importance as barometers of international consensus on normative standards and their perception as

such by states generally speaking, we need to look beyond the sources listed in Article 38 of the Statute of I.C.J. (\*Judge, High Court of Kerala, Cochin, India). *See generally*, Oscar Schachter, *United Nations Law*, 88 Am. J. Int'l L. 1 (1994); Oscar Schachter, *International Law in Theory and Practice*, 85-94 (1991); Blaine Sloan, *United Nations General Assembly Resolutions In Our Changing World* (1991).

158 Glen Plant, *Elements of a 'Fifth Geneva' Convention on the Protection of the Environment in Time of Armed Conflict*, in *Environmental Protection*, *supra* note 3, at 41. The ICRC identified these subject as requiring further development and clarification: ... (b) The simultaneous applicability of the rules of international environmental law and humanitarian law; (c) Determining what body of law is applicable between belligerent and States which are not party to the conflict but are nevertheless affected by means of warfare harmful to the natural environment;.... ICRC Report, *supra* note 94, at 10.

159 Plant, *supra* note 21, at 162.

160 *See supra* note 66, discussion on application of LOS and Kuwait Regional Convention to Iraq's pollution of the Persian Gulf.

161 ICRC Report *supra* note 94, at 9. *See supra*, notes 44-52 and accompanying text, discussion on function of Martens Clause as vehicle for merging contemporary environmental norms into laws of war.

162 The question of what options are available to guide this process is addressed in Part V *infra*.

163 Report of the United Nations Conference on the Human Environment, U.N. Doc. A/Con. 48/14 and corr.1, *reprinted in* 11 Int'l Leg. M. 1416, 1420 (1972); also *reprinted in* *International Environmental Law: Basic Instruments and References*, 172 (Edith Brown Weiss et al. eds., 1992) (hereinafter *Stockholm Declaration*). (all citations Weiss)  
The Stockholm Declaration was adopted by the General Assembly by a vote of 112-0 (10 abstentions) on 15 December 1972 (UNGA Res. 2994).

164 Geoffrey Palmer, *New Ways to Make International Environmental Law*, 86 Am. J. Int'l L. 259, 266 (1992).

165 Weiss, *supra* note 163, at 171. In fact, however, international environmental law had its genesis in the late 19th century, as states began to enter into "first stage" conventions protect the "human self-interest" of the present generation in shared resources or the global commons. The primary motivation for these early accords was essentially utilitarian and to ensure sustainable exploitation of a common resource, although some

sought to limit pollution activities to protect the health of the population of state Parties. Among these treaties are included the 1875 Austria/Hungary and Italy Declaration for the Protection of Birds Useful to Agriculture, the 1900 Convention Designed to Ensure the Protection of Various Species of Wild Animals which are Useful to Man or Inoffensive, the 1931 Whaling Convention and the U.S./Canada Treaty Relating to Boundary Waters of 1909. *See generally, Nature's Rights, supra* note 20, at 552-555.

166 Weiss, *supra* note 163, at 173.

167 *Legal Protections, supra* note 27, at 354.

168 Weiss, *supra* note 163, at 172. *See e.g., Liebler supra*, note 71, at 70.

169 *Legal Protections, supra* note 27, at 354.

170 *Supra*, note 22. The Special Arbitral Tribunal determined Canada owed compensation for environmental damage caused in the United States by the Trail Smelter operating within its borders on the principle that: " No state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequences and the injury is established by clear and convincing evidence." *Id.* at 1965.

171 Liebler, *supra* note 71, at 72-73.

172 Weiss, *supra* note 163, at 176.

173 The I.C.J. in the Barcelona Traction Case recognized general obligations, as obligations *erga omnes*, which are owed to and may be vindicated by all states. This may well be one of those obligations. The court stated: An essential distinction should be drawn between the obligations of a State towards the international community as a whole, and those arising vis-a-vis another State. By their very nature the former are the concern of all States. In view of the importance of the rights involved, all States can be held to have a legal interest in their protection; they are obligations *erga omnes*. *Barcelona Traction, Light, & Power Co., (Second Phase)(Belg. v. Sp.)* 1970 ICJ Rep. 3, 32 (Judgment of Feb 5). *reprinted in Liebler supra* note 71, at 74.

174 *See e.g., The Laws of Armed Conflict*, at 163 (D. Schindler and J. Toman, eds. 1988).

175 Plant, *supra* note 21, at 163.

176 *Supra*, note 22. Propositions articulated by Professor Edith Brown Weiss on February 21, 1995 during a lecture on "Environmental Disasters", notes with the author.

177 Liebler, *supra* note 71, at 76.

178 *See supra* note 8 and 9 and accompanying text. (discussing U.N. Charter provisions on self-defense exception to prohibition on use of force).

179 Liebler, *supra* note 71, at 76-77. Citing Article 32 and 33 of the International Law Commission's (I.L.C.) Draft Convention on State Responsibility. 1979 I.L.C. Rep. 329 and 1980 I.L.C. Rep. 69.

180 *Id.*

181 1984 I.L.C. Rep. 171, *reprinted in* Liebler *supra* note 71, at 75.

182 *Supra*, note 73. Article 1 provides: The territory of neutral Powers is inviolable. documents, *supra* note 7, at 63. *See generally*, *supra* note 22.

183 *See supra*, note 21

184 Stockholm Declaration, Principle 22, *supra* note 163, at 176.

185 *See e.g.*, *Legal Protections*, *supra* note 27, at 354.

186 *See supra* note 1 (discussion on norm-building process).

187 *See generally*, Edith Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity* (1989)

188 United Nations General Assembly Resolution on the Historical Responsibility of States for the Protection of Nature for the Benefit of Present and Future Generations. U.N. Doc. A/Res/35/8 (30 Oct. 1980, 68 in favor-0 opposed- 47 abstentions) *reprinted in* Weiss, *supra* note 163, at 638.

189 General Principle 5. World Charter For Nature. G.A. Res. 37/7 (28 October 1982, 111 in favor- 1 against (U.S.)- 18 abstentions)

<sup>190</sup> The Rio Declaration on Environment and Development, June 13, 1992, U.N. Doc. A/Conf. 151/5/Rev. 1 (1992) *reprinted in* 31 I.L.M. 874.

<sup>191</sup> Guttal, *supra* note 157, at 188. Judge Guttal observes: "The States are international political corporations. They are members of the international community as representatives of their subjects. The rules of international law accepted by a State should be seen in the context of the individual State's accountability of its citizens. In all systems of government, the State is accountable to its subjects, on whose behalf it participates in international life. Naturally, therefore, a State which derives benefit under the international law or fears its breach by another, obeys the rules of international law, for, a breach and its consequences makes it answerable to its subjects. This furnishes the inherent binding element of international law." *Id.* While I agree with the general thesis that States are responsive to domestic pressures and that may be one reason for conforming to community standards, we need only recall the world's recent and ongoing experience with totalitarian states which behave to further their own interests, though they are cognizant that the international repercussions will be most felt by ordinary "subjects" who have little if any leverage to influence their government's conduct.

<sup>192</sup> *Id.*, at 183.

<sup>193</sup> *Id.*

<sup>194</sup> See generally, e.g., Geoffrey Palmer, *New Ways to make International Law*, 86 Am. J. Int'l L. 259 (1992).

<sup>195</sup> *Legal Protections*, *supra* note 27, at 357.

<sup>196</sup> See Daniel Bodansky, *The United Nations Framework Convention on Climate Change: A Commentary*, 18 Yale J. Int'l L. 451 (1993); Vienna Convention for the Protection of the Ozone Layer (1987) and Montreal Ozone Protocol (1987) *reprinted in* 26 I.L.M. 1529 and 26 I.L.M. 1550, respectively; 1979 Convention on Long-Range Transboundary Air Pollution (entry into force March 16, 1983) *reprinted in* 18 I.L.M. 1442 (1979)(2 Protocols thereto at 27 I.L.M. 698 (1988)); LOS Convention see *supra* note 64; 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict, 14 May 1954, 249 UNTS 215; 1972 Convention concerning the Protection of the World Cultural and Natural Heritage, Paris 16 November 1972, 1037 UNTS 151. Most of the above conventions, *reprinted in* Weiss, *supra* note 158.

<sup>197</sup> The Stockholm Declaration preamble declared: To defend and improve the human environment for present and future generations has become an imperative goal of mankind--a goal to be pursued together with, and in harmony with, the established and

fundamental goals of peace and of worldwide economic and social development. See *supra* text accompanying note 166.

198 Competing policy interests are a significant factor in the balance of interests reflected by existing law and provide a substantial obstacles to development of international law principles which subordinate state interests in armed conflict in favor of explicit protection of the environment. The categories of competing policy alternatives were succinctly summarized by Captain Winter as follows: "Although there are an infinite number of potential preferred outcomes, there are essentially four policies that the decision maker in international law can choose to identify with: 1) the policy of a particular state; 2) the community policy; 3) the policy of the international organization making the decision . . . ; 4) the policy of the law itself- integrity, predictability, and objectivity. The outcome of the decision making process is drastically affected by which policy the decision-maker chooses as his or her primary concern. Captain Matthew E. Winter, *Finding The Law- The Values, Identity, and Function of the International Law Adviser*, 128 Mil. L. Rev. 1, 13 (1990). See generally, McDougal, *Jurisprudence For a Free Society*, *supra* note 1. (discussing analytical basis for policy approach to jurisprudence). Almond, *Protecting The Environment*, *supra* note 77, at 329-332 (Part VI. describes three distinct strategies of states discernible in the laws of war: 1) Inclusive/community expectations as reflected in Hague Conventions. 2) exclusive strategies of individual states which support its international policy goals-may be consistent with number one, but may define its own agenda interests resisting "control" under the law. For example, the U.S. understanding to Protocol I, discussed *supra* note-42. 3) self-interested strategies to "acquire and invoke effective power" to achieve its exclusive policy objectives.)

199 *Id.*

200 See *supra*, accompanying text to note 140. (refers to customary law principles).

201 *Legal Protections*, *supra* note 27, at 357, note 26. This expression "refers to all of the world's states as they relate to each other." *Id.*

202 See *supra*, notes 8 and 9, and accompanying text, for discussion of Charter provisions.

203 Gupta, *supra* note 18, at 262.

204 See *supra* note 21.

205 U.N. Doc. A/Res/47/37, 9 February 1993, Protection Of The Environment In Times Of Armed Conflict. See also, U.N. Doc. A/46/L.39 (5 December 1991) and U.N. Doc.

A/46/693 (27 November 1991) Title: Exploitation Of The Environment As Weapon In Times of Armed Conflict And The Taking Of Practical Measures To Prevent Such Exploitation.

206 *See supra*, note 157. *See generally*, Schachter, *United Nations Law*, *id.*

207 *See supra* text accompanying note 190.

208 *Supra* note 205.

209 *Supra* note 158.

210 *Id.*

211 *See supra* note 3 (discussion on definitional problems in environmental law); and *supra* note 30 and accompanying text (discussion on definitional problems in laws of war).

212 ICRC Report, *supra* note 94, at 5.

213 *See supra* note 120 and accompanying text.

214 *See generally*, Terry *supra* note 75. (opposing quantitative limitations on belligerent's environmental damage as it may hinder the exercise of the right of self-defense under the Article 51 of the U.N. Charter). *See also*, *supra* note 198 (discussing the role of state policy and strategy alternatives in the development of international law).

215 Schafer, *supra* note 29, at 318.

216 Michael D. Diederich, Jr., "Law of War" and Ecology, 136 Mil. L. Rev. 137, 157 (1992).

217 *See supra* accompanying text to note 57.

218 *See generally*, Grigory Tunkin, *supra* note 56, at 180 (*see* Part III. The Role of International Organizations: "The problem of primacy of international law in politics, essential for survival, cannot be solved without a strong international organization. This is a perspective. A way to it is a step by step strengthening of existing mechanisms of functioning of international law and creating new ones whenever necessary together with further development of international law."



219 See generally, U.N. Yearbook, 1993. Chapter IV: Strengthening the role of the United Nations and Chapter XVII Institutional arrangements, at 1155 and 1117, respectively. Annex I to General Assembly Resolution 48/162 aptly recognizes the historical significance of these developments and potential for the United Nations to play the premier role of a truly world "governing body" as follows:

1. The United Nations has a unique and paramount role in the promotion of international cooperation for development. In the present historical context- the end of the cold war, the increasing interdependence of nations, the increasing globalization of the world economy and the growing linkages between economic, social and related issues - the need for an enhanced role for the United Nations in international cooperation for development has multiplied manifoldly. This entails, on one hand, strengthening the role of the United Nations in promoting international economic cooperation for development as envisaged in the provisions of the Charter of the United Nations and, on the other, restructuring and revitalization of the United Nations in the economic, social and related fields.

5. The United Nations is a unique forum where, based on the principle of sovereign equality of all States and the universality of its membership, the community of nations can address all issues in an integrated manner. The organs, organizations and bodies of the United Nations system have a vital role to play in furthering the analytical work of relevance to the implementation of global consensus on international economic cooperation, in promoting and securing the international cooperation needed and in providing technical assistance. *Id.* at 1118-1119. *But cf.*, Paul W. Kahn, *Lessons for International Law from the Gulf War*, 45 Stan. L. Rev. 425 (1993) (Professor Kahn is less optimistic about the future credibility of international law in part because of its failure to vindicate fundamental human rights by seeking individual criminal responsibility for war crimes committed by the Iraqi leadership).

220 See generally, Guttal, *supra* note 157, 187-188. (Discussing the concept of "sanctions" as applied in international law notes differences with domestic application and observes: The sovereign States join the international community with the awareness of their obligation to obey the laws and then make laws themselves, thereby ensuring that they will not break them. . . . There is the more important internal normative element of law which obliges a subject to obey the law. It obliterates the distinction between an obligation to obey the law and the threatened consequences.")

221 See generally, Agenda 21, United Nations Conference on Environment and Development, Rio de Janeiro, June 1992. *Supra*, note 190!